

PC Update

October 1997

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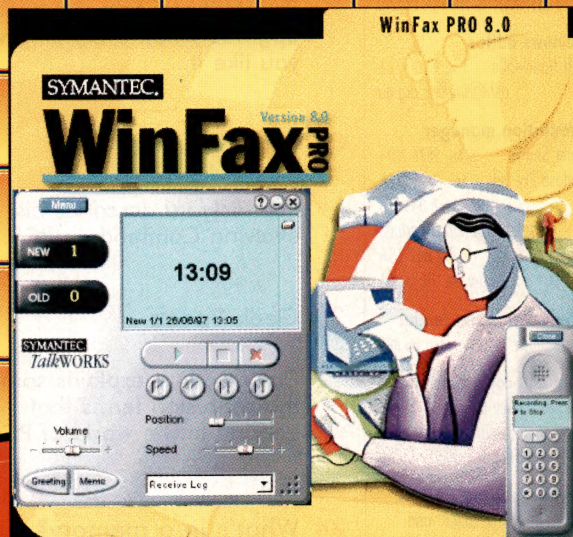
UPGRADING

FEATURES

Geek speak
What's in a memory?
Object-oriented data modelling
Distributed objects

REVIEWS

Symantec WinFax Pro 8.01
Freehand Graphics Studio 7
Lotus SmartSuite 97
Rescue Visio 5.0



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27 Dorcas St, South Melbourne

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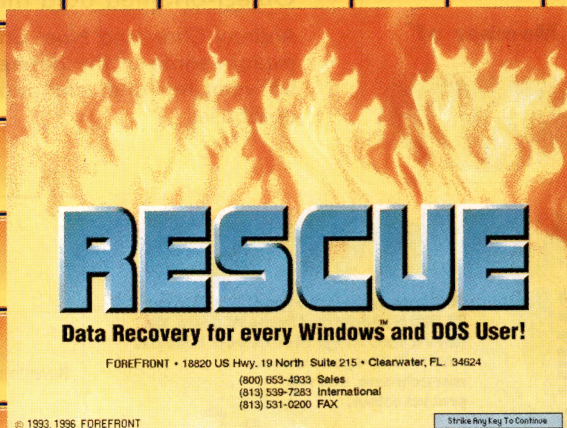
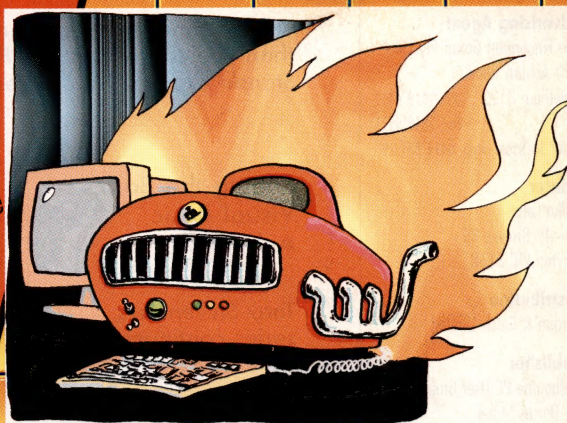
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BANK ST

KINGSWAY

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Shrine of Remembrance



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Member of



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	Forthcoming PC Update themes	Articles deadline	Ad booking deadline	Ad delivery deadline	Magazine delivered by
November	Productivity (Utilities)	6 Oct	8 Oct	10 Oct	31 Oct
December/ January	Christmas Special	27 Oct	29 Oct	31 Oct	21 Nov

Reviews

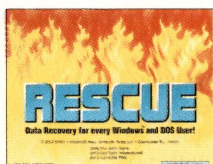


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Melb PC directory

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(34 lines, up to 28.8 kbps)

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Internet Service

(16 lines, up to first 30 minutes total, per day) 9690 5644

(96 lines, up to 120 minutes total, per day) 9686 4506

plus 120 lines up to 120 minutes per day — see MOTO for number when they are installed

Home Page

http://www.melbpc.org.au

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Submitting articles and reports.

Do not use the Internet for submissions without prior approval from the editor. Upload articles, reports and reviews to the BBS, as plain, unformatted (ASCII) text files or plain unformatted (ASCII) text files bundled in a ZIP file with accompanying graphics. Do not use long file names or upload self-extracting EXE files. Make sure you are in the PCUP file area, before you upload the file. Leave a message to All (not "Private") in the PC Update Discussion area. Submissions that conform to the above formatting requirements can also be sent by post, on a virus-free diskette, which will not be returned, to the Group's PO Box.

Editing. All articles are edited for style, spelling, grammar and length. Articles that may not be edited or that do not meet our standards, will be rejected.

Graphics. Supply graphics or screen shots, wherever possible, as colour, or black and white images, saved in one of the formats: PCX, BMP, TIF, WMF or EPS.

Rejections. Contact the editor if your submission is not published within four issues. Articles with long file names, self-extracting files or virus infections are rejected without notification. Other rejections are advised by phone or in writing.

WORKING WRITER'S WORDS

Carol Daniels



please form

an orderly

queue on

the left

You know, some of us don't know our way around the place as well as we might, that's why I decided to give you a tour this month.

"Yes, you in the back, do you have a question?"

"Why a tour? We're about to move?"

I'm glad you're up-to-date on the move, but this isn't a tour of the office, it's a tour of *PC Update*, or parts of it." Which ones? Not "Software of the Stars," or the "Hardware Hall of Honour". I'm going to show you the less glamorous, but very useful, parts of the magazine. You don't need a camera, just a back issue of *PC Update*, any one from 1997. You can use this one, if you want to switch back and forth between the narration and the sights. (It makes me car sick.)

Let's get our bearings, open your copy. If things go the way we like them to, the inside front cover will be an ad. It's a prime position for a colour ad. We like those. If the inside front cover is an ad, the facing page will be too, and the magazine's content begins on the next two pages. If we don't have an ad for the inside front cover, the magazine's content starts there.

The start of the magazine content is the start of the actual tour. Oh, one more thing before we get started. You may find that I'm jumping around a bit. Don't worry, we're in a confined space. You're unlikely to get lost. If you do, wander up to the middle of either page. Check out the table of contents, that should keep you occupied until you're rescued.

Okay now. Looking at the pages in front of you, you'll see a column of text along the outer edge of each. This tour covers these two columns and the information across the bottom of both pages. It's not as exciting as the special effects department, but once you know what it's about, you'll find it one of the most useful.

The outermost column on the left-hand page lists the contact information for many of the people responsible for *PC Update*.

I expect some of you know who I am. Everyone knows Ash Nallawalla and Peter Smith. Note how we have different titles.

Those titles relate to our responsibilities. Ash is responsible for reviews. Peter for production. Almost everything in the magazine goes through me, although not in the way some people imagine (more about that later). One thing that doesn't go through me is advertising. For that you need to contact Peter Jackson of the Fingerprint Group. He's listed in this column too, and you'll find details about Fingerprint in a box under the column of text. There are other important links in the *PC Update* chain listed here. Drop back sometime when you have a minute and have a look around.

Now let's jump to the opposite page. Watch your step, this is different terrain. *PC Update* isn't just a magazine, it's the official magazine of the Melbourne PC User Group. This is where you find information about the group. First you'll see the contact information for the office. The physical address changes with the move, but the postal address, phone, fax and First Aid (Help) lines will remain the same.

Moving down the list you'll see contact information for members of the Melb PC committee. I knew some of you would notice. There are similarities with the opposite bank. See how some have specific titles, the rest are listed in a group. We work together, but we have different responsibilities. Put that in your database, it will come in handy. For example, Stan is undoubtedly "The Man", "President of Melb PC" and our "Fearless Leader". But he's not the only one on the committee. Consider sharing the load when you have a query or complaint. Likewise, as the editor of *PC Update* I decide what goes into the magazine each month. But I'm not responsible for every activity reported in the magazine. There's a SIG coordinator—Yahya, and a BBS liaison—Jean. For the library there's Gloria. Anyone who's used Dial Help for Internet queries already knows John, talk to him about swap meets and training too. That's enough to get you started, drop back again and do some investigations on your own.

Let's move back to the left-hand page and take a quick look at the bottom. You'll see a partial schedule for *PC Update* with themes, deadlines for

articles and ads, and a "delivered by" date for upcoming issues.

Time's running short so we'll cross the divide one last time for a look at the fine print. This information, like everything on this tour, appears in every issue (it has for as long as I can remember, probably longer). It used to move around, but it's had a stable home for a long time now. Readers and contributors should read this, at least once. Regular contributors should glance at it every month or so (we do make changes). For details you'll need a copy of the guidelines. Think of the requirements we print in each issue as the minimum for us to consider your submission, the bare bones basics and all the information you need to get your own copy of the guidelines.

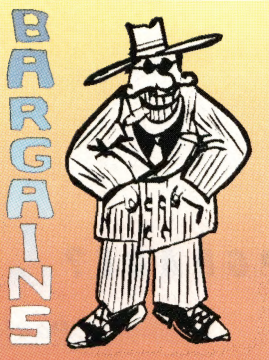
I'll leave you to discover the rest of the magazine on your own. This is a good time for you to close the past issue and flip to the front of this one for a view of what's on offer this month. Now, before I go to collect the next tour group, let me point out the section over there, the one headed, "Club News." When you're looking for information about a SIG, monthly meeting, training course, discount or advertiser, this section will point you in the right direction.

Bye now. Have fun. Come back. Don't forget to visit the gift shop on your way out. □

Members' free ads

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Member to member deals



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John (03) 9793 1447

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Norton PC Anywhere 7.5 for Win 95: Remote Control and Communications Program is excellent and simple to use. \$90

Alpha 5 database for Windows. Includes 3.11 & 32-bit version for Win 95. Easier to learn than Access or Approach. Suitable for business. \$140

Back It 4: Brilliant backup program for DOS/Win 3.11. \$20

Best Books: Windows accounting with Quicken import. \$20

Peter (03) 9761 5561 8 am - 8 pm. Can take phone order and mail.

I have recently moved to Win 95 from OS/2 (reluctantly). Consequently I am selling all my OS/2 applications. They all come with their original disks and packaging.

OS/2 Warp Connect (includes a registered copy of SIO v1.57). \$70

OS/2 Warp Connect (includes a registered copy of OS/2 Essentials). \$70

BackMaster version 1.1. \$40

GammaTech Utilities v3. \$70

FaxWorks Pro version 2, (not the bonus pack version), as good as WinFax Pro, output is to a HP LaserJet III (i.e. 300 dpi quality faxes). \$50.

Vicki (03) 9569 5999 (BH), (03) 9570 9997 (AH), or 0416 041 341. You can also e-mail me if you wish to ask any questions vapokis@c031.aone.net.au

Advertisements from members, for Swap, Wanted, For Sale, Free, etc, are run free of charge.

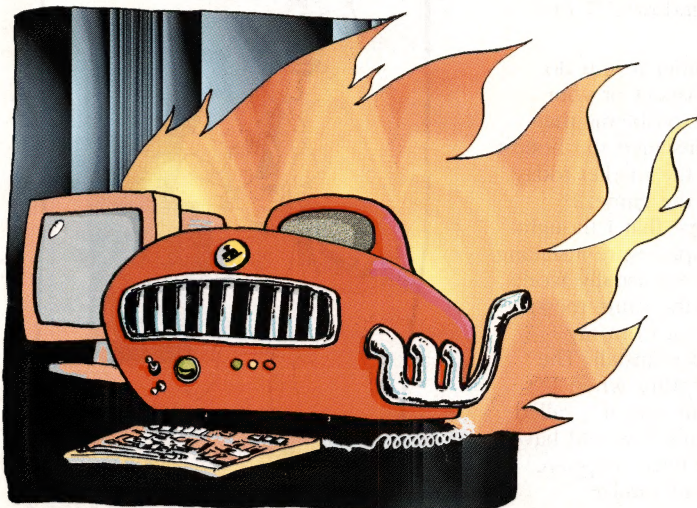
All ads must be loaded as a file (NB: *not* a message) to the BBS (NB: *not* the Internet) in ASCII format to area PCUP or supplied as an ASCII file on a virus-free non-returnable MS-DOS diskette (any size) and delivered to the Group's Office.

We do not have the time to type your ads, so this service is restricted to electronic advertisements.

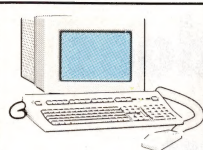
Infected disks are thrown out, without attempting to disinfect or recover data!

Members' ads will be included in the first available issue of *PC Update*.

Advertisements must include at least one phone number—if you only want replies via the BBS or Internet, only advertise there.



Cartoonist Rob Pickford's desktop "Millenium Falcon"



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If your system does what you want...

DO YOU NEED TO UPGRADE?

Paul Maharry



New and improved! Now better than ever! Newest version currently on the market! How many times do you see these types of slogans when reading computer magazines? If you read any type of PC periodical, these announcements are part of a strategy to keep you purchasing the latest software or hardware. The question is, do you really need the newest piece of computer equipment? Often, the answer is no. Simply because a computer manufacturer puts a new product on the market doesn't mean you need to jump and buy it, although I am sure many computer manufacturers and salespeople would disagree with me.

Self-analysis of your computer system is very easy to do. Let me share with you my personal experience. Back in the late 1980s, my father gave me his old 128 KB Mac to use for work. Since 80% of my job required me to type reports, lesson plans, schedules and memoranda, I needed a computer. This one had the following software: MacWrite and MacPaint. Both were versions 1.0, if that tells you anything. That's it. Nothing more, nothing less. This system lasted until I left my job in Georgia in 1994 and moved to Florida.

The computer performed according to my needs and desires. My "new" system is a 486/50 with 500 MB of disk space. Although it is not "state of the art", it suits my needs just fine. I did have to put in 16 MB of RAM instead of 8 MB, since I review software that requires that much of RAM. I also took advantage of the deeply discounted RAM giveaway that has taken place the last few months and spent a mere pittance. This is my personal experience. We, as PC users are not all the same. Some may say that they

cannot survive without at least a 200 MHz Pentium with a 4 GB hard drive. Different strokes for different folks. What you may list as a must have, others may look at as a "would like to have someday".

Now let's take a look at the software available today. Since we are extremely fortunate to view some of the latest software by the top software manufacturers at our monthly meetings, new and improved is often the topic. One has to ask, "Is this product something I truly need or something I want?" Some products are truly such tremendous advancement for a system, that it is difficult to avoid succumbing to the urge to upgrade. An easy example would be a 9.6 kbps modem (the hottest available 4-5 years ago) to a 28.8 kbps modem. While not the top of the line, when it comes to modem speeds, it still represents a significant enhancement to your system, if you use a modem. But only if you use a modem.

How many of you don't have a modem in your system? How about a CD-ROM, sound card or extra large, flat screen colour monitor? Needs versus desires. Some software is truly an improvement over the previous versions, some is not. Many PC users are using Windows 3.1. Not the latest operating system, but it must suit those users' needs. Many are afraid to upgrade, many don't want to. Do you really need Windows NT or even Windows 95?

Another point to ponder if you do decide to change any aspect of your computer system is the problems that may occur. I recently installed the hottest adult CD-ROM game on the market today. During the running of the game, I received a error message that I thought could be corrected simply by re-installing the program. This process usually works for me. I still received the same message and decided to remove it from my system, shut down and re-install. The program deleted my registry when I attempted to reboot. I'm sure if I called the software manufacturer I would have been told that it could never happen, but it did. Have you had similar experiences?

I'm at the point now where if my computer boots up properly, I am truly happy. This is not the way it is supposed to be. Sometimes upgrades do not work well with the previous versions of the same product. Version 3.0 doesn't mean that it is better than 2.0.

My point in this column is relatively simple. If you are happy and satisfied with your present system, keep it. If your system does what you want it to do, efficiently and effectively, hold onto it.

No need to keep up with the Jones' simply because of one simple fact, the hottest computer system on the market today will be old hat next month. Two years ago a 486/66 was simply the best. Now we have 200 MHz Pentiums, MMX chips, 56 kbps modems, enhanced audio and video cards, the list goes on and on. By keeping your system intact, you can surely save yourself a heap of money.

Happy Saving!

About the author

Paul Maharry is a member of the Sarasota Personal Computer Users Group, Inc. □



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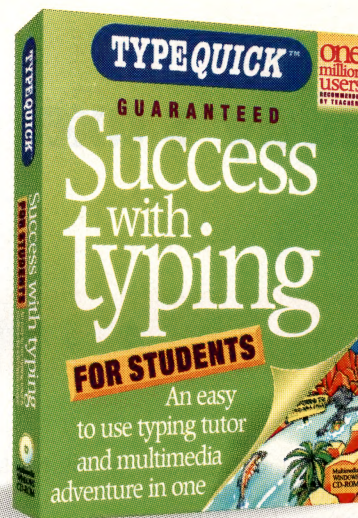
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Postcode _____

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TEACHERS RECOMMEND IT!

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Peter Rowan, M.Ed, Vic

CRITICS RAVE ABOUT IT!

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Cathy Kennedy, APC, July 1997

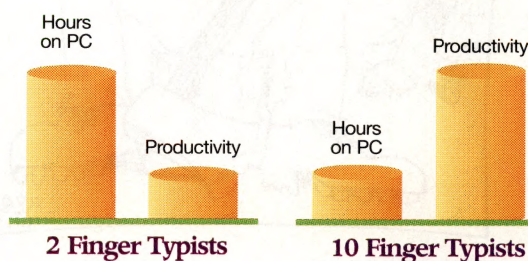
Typequick has revolutionised learning to touch type ... it's the easiest and most amusing way to increase your keyboard skills and productivity

Linda Bruce, The Australian,
July 5, 1997

PARENTS LOVE IT!

My kids love the course. Joshua is already at 25 wpm and Rachel is at 16 wpm.

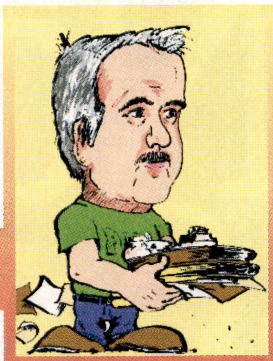
Sue Higgs, MiddlePark, Qld.



10-finger typists are four times as productive as 2-finger typists.

A SIMPLE UPGRADE...

Rob Pickford



I am writing this article on my work-weary old computer. It is a Commodore PC5; an XT motherboard with 512 KB RAM, a 5.25-inch low-density floppy disk drive and a colour screen.

Or at least it was!

You see, from that humble beginning has grown, over time, a grunty computer, sitting like a fat spider at the centre of an electronic web of peripheral devices.

In order to fully explain my hot-rod or, as our editor once called it—"millennium falcon" of computers, I will tell you the tale of its life.

At the time of its purchase, IBM-compatible computers vied with the more popular Commodore 64 and their ilk. Because I worked for a government department that used IBM-compatible computers, the choice was obvious, even though at this time Commodore 64s were a credible and realistic option. Priced at a special offer of \$1300, it was a bargain.

The monitor provided with the PC5 was mono, so I cut a deal to include a colour Amiga monitor (a low resolution EGA) in its place. This perhaps set the tone for the future—I had upgraded before it even came through the front door.

It was not very long before the aptly named "Toad" syndrome took a firm hold.

First came the need to have a 3.5-inch

floppy drive. As with everything to do with computers, this involved the usual "There's a hole in bucket, dear Liza" chain of necessities. To fit a 3.5-inch low-density floppy, a 286 motherboard was required. Funding was an issue. How important was this change? It was *really* vital, the computer would no longer function without it, the future of mankind could be in jeopardy, etc, etc.

So now I had the luxury of a 286 with a drive capacity of 720 kilobytes on disk. Also, in the process I had gained a full 640 KB of RAM.

Next. A lot of nervous tension, a little tinkering and careful following of a magazine article and I had added a turbo switch to the case.

A 9-pin dot-matrix printer was the next essential addition, definitely the last purchase necessary to be fully functional.

For a long period after this it was difficult to justify further expenditure on a machine likely to be named co-respondent in any divorce proceedings that may have been instituted. In a political sense you could say that "supply was blocked" by necessity and priority.

Over this period much was learnt about software. I was able to set up "mini hard discs" using the 720 KB floppy discs. I blush to think of the elaborate menu systems and clever

AUTOEXEC.BAT tricks that I employed in my computing. Always I remained totally envious of the work computers, which had progressed from 20 MB hard disks to a whopping 80 MB and more over this time.

Then around 1990, an upturn in income once again opened the upgrade path.

First on board was a lightning fast IBM hard drive. Using the new IDE interface, this 40 MB drive was awesome in its performance. Having spent some years using mini disks, much time was now

spent revelling in the acres of space available and the boot-up tricks now possible. It was no longer even necessary to bother with drive parking. Next came the most beautiful 386 DX-40 AMD chip and motherboard, resplendent in the glory of 2 MB RAM. So fast, so sleek...the ultimate of 386s.

I was sated. All was well with the world, harmony reined. Had Jeff Kennett not interfered, all would have remained well, but oh no, he had to offer me lots of money to go away. So I did!

Setting up in business lead to a shameful orgy of upgrades and software purchases:

- From 2 MB to 4 MB RAM
- Sound card
- 1.44 MB floppy installed to the noble role as "A Drive"
- HP DeskJet 640
- 480 MB hard drive
- 1.2 MB floppy disk
- That break-through product DOS 6.1, followed by OS/2 3.0
- CD-ROM
- 486 DX2-66
- From 4 MB to 8 MB RAM
- Tower case
- Scanner
- 486 DX4-100
- Epson colour printer
- Network card
- Tektronics phaser printer.
- Puff, puff...just let me catch my breath... pant, wheeze (non-smoker type) gasp!
- 14.4 kbps modem and the never-ending joys of comms riddles
- 1.7 GB hard drive
- 28.8 kbps modem
- Digitising pad
- Tape backup
- From 8 to 12 MB RAM
- OS/2 Warp
- Banksia phaxswitch
- 6x86-150+ and motherboard
- From 12 to 16 MB RAM.

Of course, this took a number of years and a lot of loot. Although it looks as if I remained on the cutting edge, the truth is that most of my purchases came as the "latest" goodies fell back into the



field and became common place and, fortunately, "affordable". Best summarised by that song..."Rock and Roll, I gave you all the best years of my life...I was always one step behind you" ..or something like that anyway.

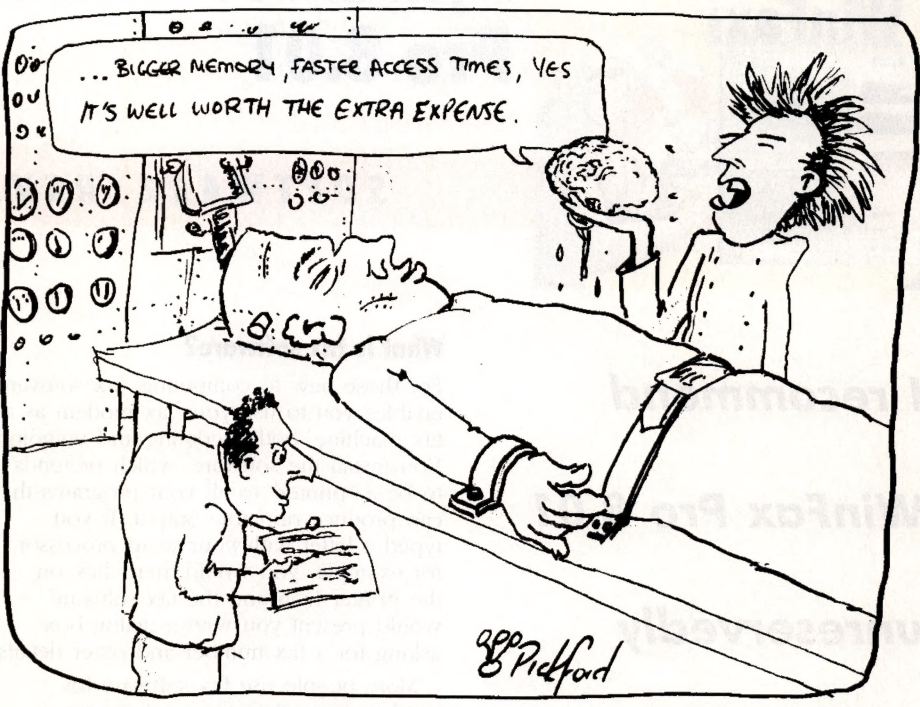
I am no longer driven by the need to maintain a cutting edge system. I have recovered after ten years or so from the "Toad Syndrome". I no longer hunger for the latest...I am unimpressed by MMX and its buddies.

I am not an addict.
I'm free from all compulsion.
Oh all right...yes, I did just upgrade from 16 to 32 MB RAM. That's *PC Update's* fault. All those memory hungry cartoons to colour and manipulate..."I" didn't need to do it!

OK. OK...yes, I have just bought and installed IBM Voice Type...but I'm a writer who hasn't time to touch-type everything at 20 wpm...now that's valid...isn't it?

Well...isn't it! Nothing compulsive at all. So I sit proudly at my Commodore PC5 and work away. Probably the best computer I could have bought really...over ten years. And it still performs remarkably well.

Now what time does PC-IT 97 open on Tuesday, allowing for a three-hour drive...hmmm?



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..... Post code

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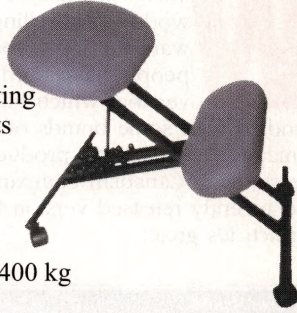
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- Seat slides to suit individual height
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- Total weight of chair 7 kg



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Symantec WinFax Pro 8.01

SOFTWARE REVIEW

Ash Nallwalla



I recommend
WinFax Pro 8.01
unreservedly
(a rare statement
from me)

WinFax Pro has been the world's best-selling fax software for some years. Many people have used its *Lite* version, which has been bundled with some brands of modem. Symantec acquired this product during its merger with Canadian company Delrina and recently released version 8.0. My verdict: it's great!

What is fax software?

For those new to computing, fax software enables you to use your fax modem as a fax machine, both incoming and outgoing. You install the software, which pretends to be a "printer" to all your programs that can produce printable output. If you typed a letter with your word processor, for example, you would then click on the printer icon and the fax software would present you with a dialog box asking for a fax number and other details.

More people use fax software for sending faxes than for receiving them. While one uses less paper to receive a fax on a computer, when you can erase something that does not need to be printed, you also need to have your PC and modem left on all the time. Yes, there are modems that will receive a fax without a PC being left on, their pricing is at odds with the budget of the casual fax user. A heavy fax workload requires a dedicated fax machine, aided by a PC and fax software.

A fax modem is convenient for sending faxes because you don't need to print on paper before sending them. It is also useful for sending a fax broadcast to STD destinations late at night when the staff have gone home and the phone rates are at their lowest.

WinFax Pro

Why is WinFax Pro (WFP) such a popular product? In particular, it is well-designed, easy-to-use, feature-rich, and up with the rest of the market. It was a delight to review because I had stayed away from its predecessors for the past three years, while I was employed at Hayes, which makes a competitive product called *Smartcom Data/Fax Pro* (which has data features too). Only a product manager can appreciate the pleasure of making a comparison with a rival product, but I shall not be making any comparisons in this review.

WFP is aimed at all user profiles. Even large organisations, which need a networked fax solution such as WinFax Pro for Networks, can use it as a client for individual users. It is well integrated with current business software, such as Microsoft Office 97 and Corel WordPerfect. Although Windows 95 comes with a basic fax applet that can send and receive faxes, it barely qualifies as a "light" version.

What's new?

- Optical character recognition
- Windows NT 3.51 and 4.0 support
- Controller applet manages WinFax operations in the background without

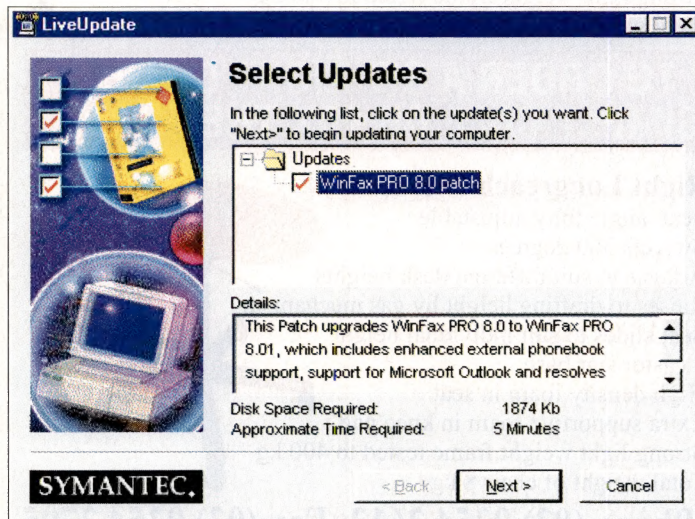


Figure 1. LiveUpdate makes it easy to obtain and install a patch

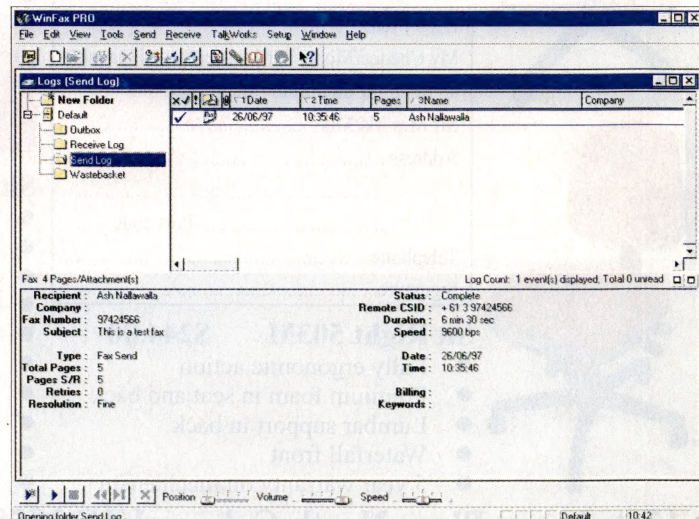


Figure 2. The main view of WinFax Pro

- the need to start the full application
- Improvements to TalkWorks
- Integrated with Symantec ACT! phone books
- Cover page design wizard
- Dual modem support to manage two lines
- Default send options can be stored
- Support for WinFax Pro for Networks and Net SatisfAXtion.

Basic operation

Sending and receiving faxes is straightforward. You can use one of the supplied templates for a cover page or roll your own. You can insert your logo and scanned signature if desired. At my previous job, we created the cover page with Microsoft Word and the document could have as many pages as needed. Sometimes a cover page was needed when sending a free-standing document, such as product specifications. WFP handles both situations. Incoming faxes are stored on your hard disk and a suitable icon on the taskbar provides an alert.

Voice and fax-back

WFP is integrated with TalkWorks (TW), which can also run on its own. TW acts as a voice-mail manager, namely, a fancy answering machine that can make your one-person business sound like you have

several "departments"—"Press 1 for Sales, 2 for Accounts Payable..." It is also a fax-back server—namely, the greeting message can tell callers to press numbers on their telephone keypad to select a document they would like faxed to them. Large companies such as Hewlett-Packard have more sophisticated ways to do this, but you may be familiar with the concept. This is ideal for businesses that need to fax forms or product information to callers.

There is an international selection of canned greetings that you can play to your callers. It includes Irish, English and American accents and features both "serious" and "humorous" versions. You can have a serious message during nominated hours and days; a funny (or different) message after business hours and during weekends. You can record messages using a sound card, a phone handset, the modem's microphone (if any), or a remote telephone.

Smarts

Buried in the manual are some smarts that a store browser won't find on the carton:

- Caller ID support, which will be a reality for us later in 1997. You can tell who is calling while the phone rings
- Toll saver, enables you to dial into your PC from afar and save money. If the phone rings for two more rings, you

Info Box

WinFax Pro 8.0

Minimum system requirements

- i486 CPU (Pentium or similar preferred)
- 8 MB RAM (16 MB recommended)
- Win 95/NT 3.51/4.x
- 27-44 MB free disk space
- Class 1, Class 2, or Class 2.0 fax modem
- Voice-capable modem required for TalkWorks

Availability and cost

Available from most reputable software resellers, otherwise contact Symantec for the name of an outlet near you:

Ph: (02) 9850 1000

Fax: (02) 9850 1001

RRP \$149

Upgrade from version 7.5 \$39.

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Morris Tobias has been a member and long-time supporter of Melb PC since 1987. Hundreds of members have benefitted from his expertise.



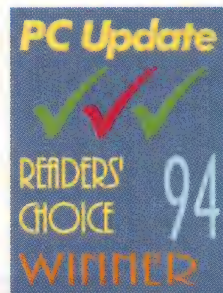
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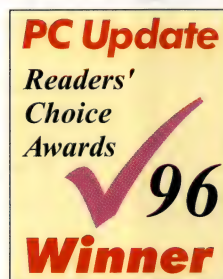




Figure 3. TalkWorks control panel looks like a real answering machine

can hang up without paying for the call because it means there are no waiting messages

- Call screening, which enables you to listen to a person who is leaving a message and take the call if you wish
- Silence detection (adjustable sensitivity), which terminates the message recording if your caller says nothing (or is a heavy breather.) No more empty messages
- Thumbnail view of cover page templates for ease of selection
- Eavesdropping (best for last), which means you can safely grab the phone as it rings and it turns out to be a fax. Wait for TW to begin taking the fax, then hang up the phone without fear of losing the fax.

Additional information can be obtained on the Internet at <http://www.symantec.com/winfax/>. It has a link to a page where with additional greeting messages.

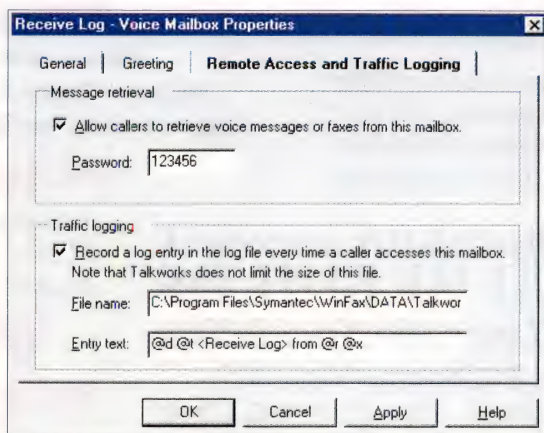


Figure 6 (left). TalkWorks uses photo-realistic images for its dialog boxes

Figure 7 (above). Remote retrieval of messages is password-protected

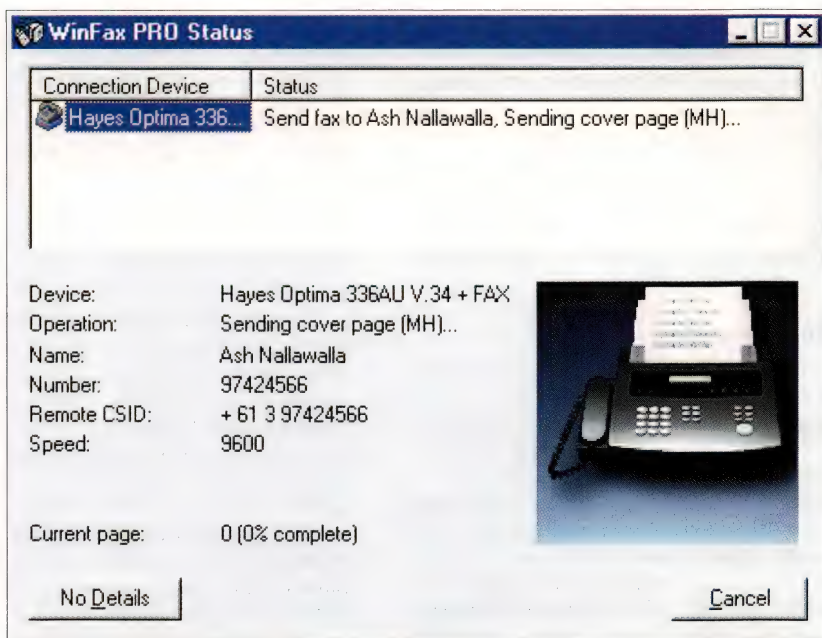


Figure 4. A fax transmission in progress

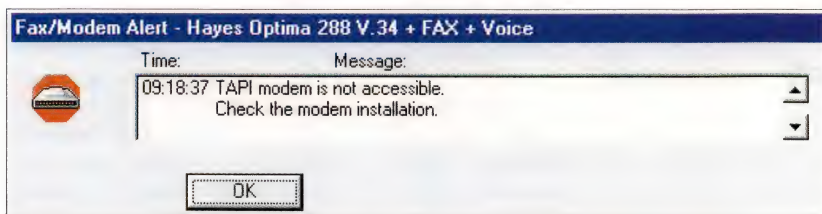


Figure 5. I leave my modem on all the time and get this error when starting my PC. (A modem reset fixes it)

Mailboxes

TW takes data, voice, and fax calls and places them in up to 100 "mailboxes". One phone number, therefore, can cover all bases, if one line is all a startup business can afford. Why would someone want to take data calls if they are not a BBS? The most likely user will be the owner from another location, for example, to dial into the home PC to download or upload a file.

Optical character recognition (OCR)

OCR appears to be a last-minute addition to WFP, in the form of Xerox TextBridge. It is not mentioned in the User's Guide, but is documented in the online help file and mentioned on the carton. OCR enables you to "scan" an incoming textual fax document and save it to an editable text file. "Editable" is the operative word because OCR is an inexact science (and a

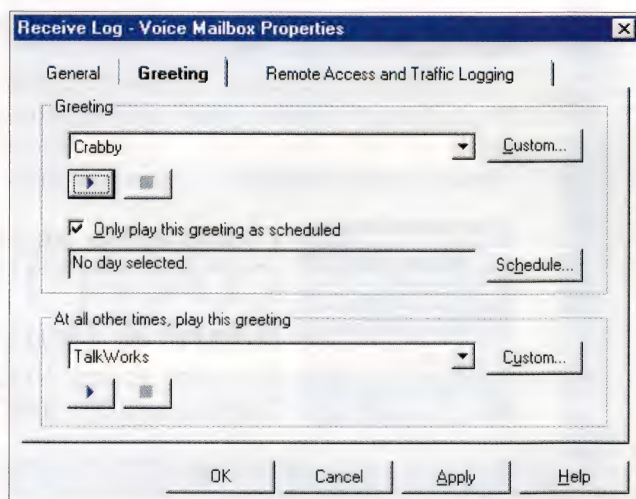


Figure 8. You can play two different greetings at different times of day

growth industry for the OCR software vendors). You will usually get recognition errors, particularly from faxes, which are usually sent at 100 x 200 dots per inch (dpi), or 200 x 200 dpi (recommended) at fine resolution.

Documentation

Symantec printed literature appears to be shrinking in general—perhaps most people don't read manuals unless they have to? WFP's User's Guide was written in the Toronto office and is very well written. The Norton manuals are probably written at Santa Monica and are slightly lower on my arbitrary scale. The WFP documentation places great emphasis on the value of planning, as the alternative can spell chaos. Worksheets are provided to simplify this step. The online help file is comprehensive.

LiveUpdate

New Symantec products have a feature called LiveUpdate, which enables you to check for updates and patches over the Internet or its nearest BBS. It can be configured to check as often as you wish, and I used it to update the supplied version 8.0 to 8.01.

Which modem?

Unless you have a voice modem, you cannot take advantage of TalkWorks. Older modems used to be "Class 1" while newer ones tend to be "Class 2" or "Class 2.0". Class 2/2.0 is a modem standard in which the modem does most of the protocol work, while the computer manages the session and provides image data in the appropriate format. In Class 1, the computer does most of the protocol work and image generation, while the modem handles only the basic modulation and asynchronous data conversion.

WinFax works with Class 1, Class 2, Class 2.0, CAS-compatible (supported under Windows 95 only), Worldport, and Sendfax (send only) type fax-capable modems. Unfortunately (for modem companies), to use all WinFax features, Class 1 modems work best. One such advantage is the ability to send an editable file as an attachment to a fax—yes, that is not a typo. The Binary File Transfer (BFT) allows for that, but both ends must have similar equipment.

There is a list of compatible US modems at <http://sos.symantec.com/twk8list.html> but be assured that

Australian models from US vendors will be rarely similar to an identically named US model. No Australian modem vendor is listed there and I doubt if a single modem can cover all features. I borrowed a Hayes Optima 336 Business Modem for this review and was satisfied with its performance.

Assessment

Although I have mentioned many features, I don't think I can do justice to their richness. WFP 8.01 is a mature product that deserves a trial, and you can download a free trial copy at http://www.symantec.com/winfax/index_downloads.html. A longer list of features and benefits is at http://www.symantec.com/winfax/feaben_wfp80.html. I recommend WinFax Pro 8.01 unreservedly (a rare statement from me).

About the author

Ash Nallawalla (ash@melbpc.org.au) was, until recently, a Technical Product Manager at Hayes and is looking for new challenges elsewhere. He has held various editorial positions at *PC Update* since 1988 and is presently our Reviews Editor.

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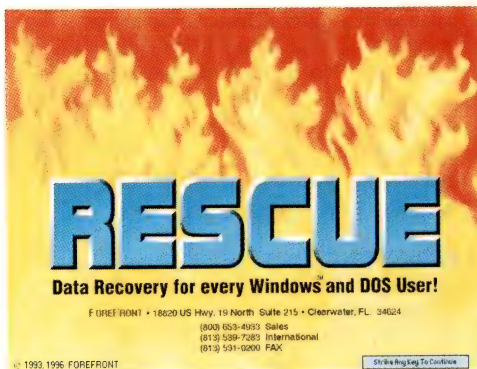
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PC Update, October 1997

13



Rescue

SOFTWARE

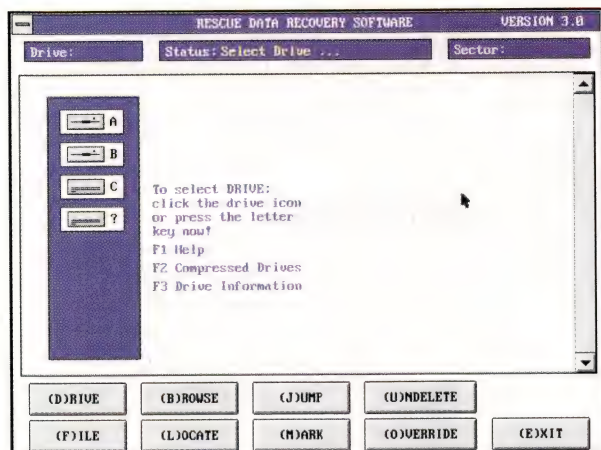


Figure 1. Selecting a drive

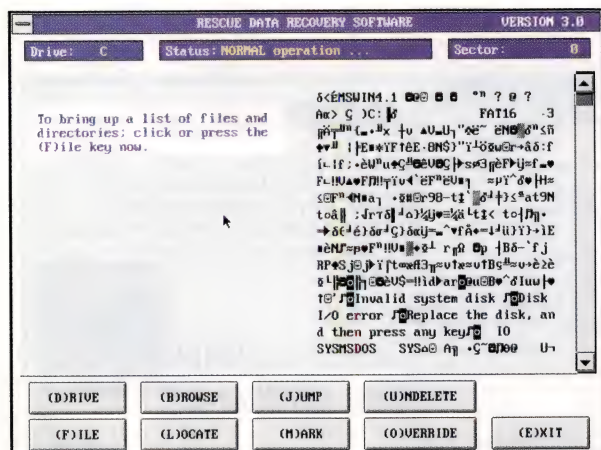


Figure 2. Displaying the boot sector

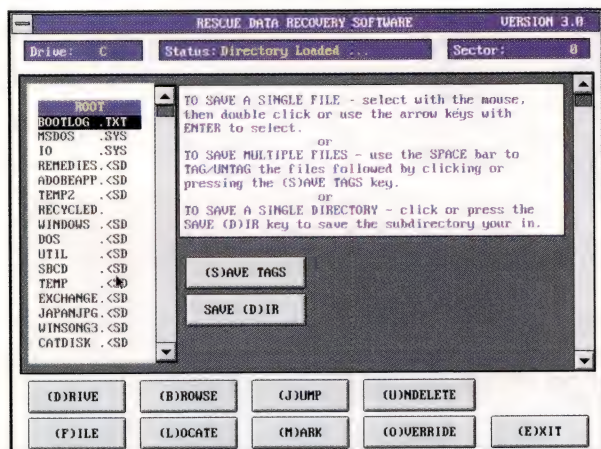


Figure 3. Looking at files and directories

**a simple and
reliable utility
for the rapid
recovery of
crashed hard
disk files**

No, this is not a computer game. Far from it. Although provided on only one 3.5-inch diskette, it is a serious item of software. ForeFront *Rescue* is a data-recovery program complete with its own operating system, so that it can, if you have had a hard disk crash, bypass DOS, display your hard disk sub-directories and recover your data files by copying them, individually or by entire sub-directory, to floppy disks or to a second installed hard disk, if you are so lucky. All this you can do methodically and rapidly by simply using the menu and following the step-by-step instructions provided in the manual. There is no need to attempt to repair the damage before recovery. All types of files can be recovered, from both damaged disk drives and damaged floppy disks. *Rescue* works on all IBM-compatible computers that use dos and/or Windows.

Setting up for recovery operations

For recovering files from a floppy disk, you simply copy the eight files on the provided program disk to a sub-directory on your hard disk, run *RESCUE.EXE* and follow the recovery instructions.

To set up to rescue critical files from a crashed hard disk, you run a boot-up disk, swap it for the *Rescue* disk and invoke *Rescue*. For greater convenience, long before the hard disk crash, you should have prepared a boot-up disk and copied the *Rescue* files to it, together with your DOS mouse driver. This is insurance which you hope you will never have to use in earnest, of course.

You can also recover files from compressed hard drives prepared with *Stacker* (versions 2 to 4), the *new* DOS Drvspace and DOS Doublespace. SuperSTOR, SuperSTOR Pro and Drvspace 3.0 (for Windows 95) and any compressed floppies, are not yet supported.

Running the program

You run *Rescue* from DOS. You can actually run the program directly from Windows 95, which I did for the convenience of preparing the early screen shots to accompany this article, but to successfully recover files from a hard drive that was set up with Windows 95 you must boot from a DOS boot-up disk, which I found necessary to obtain the later shots.

I will not repeat the step-by-step instructions that appear in the 40-page User's Manual, but you should be able to follow the major sequences from the screen figures. The instructions in the manual are clear and there are ample notes provided to explain any unexpected hurdles.

Some explanations are helpful. You will see from Figure 1 that one of the drive selection buttons has a query (?) next to it. You

Bob Burt



Info Box

Rescue

Minimum system requirements

- IBM XT/AT, PS/2 or compatibles
- Minimum 384 KB memory
- 600 KB free hard disk space
- MS-DOS 3.0 or higher
- VGA or SVGA screen

Rescue recovers data from most standard floppies and MFM, RLL, ESDI and SCSI hard drives and some compressed drives

Availability and cost

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Distributed by Hot Key Pty Ltd
PO Box 677

Milsons Point NSW 2061

Ph: (02) 9922 5199

Fax: (02) 9922 5338

Internet: www.hotkey.com.au

E-mail: software@hotkey.com.au

RRP: \$129

Manual data recovery

There could be situations where the rapid automatic recovery system does not work, such as when both FATs are missing and garbage appears in place of the root directory. Usually, not much then can be done to recover graphics, spreadsheet or other files which contain mainly control codes and symbols, as it is difficult (but not impossible, if you have both the time and the expertise) to work out which data belongs properly to each file.

The User's Manual provides easy-to-follow instructions on how to recover ASCII text files in such situations, using the (M)ARK button to select all the sectors you wish to save.

Conclusion

Rescue is a simple to operate and reliable utility for the rapid recovery of files from most crashed hard disks or damaged floppies. Highly recommended.

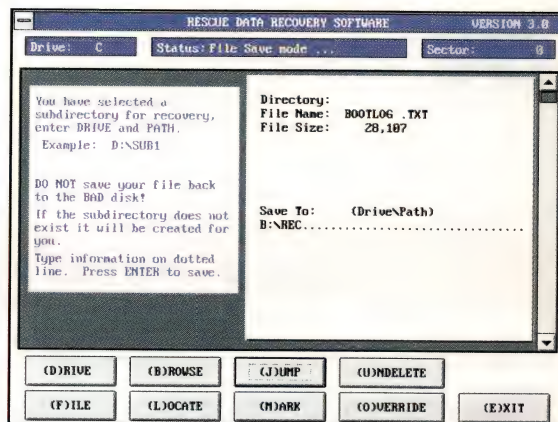


Figure 4. Ready to recover a file

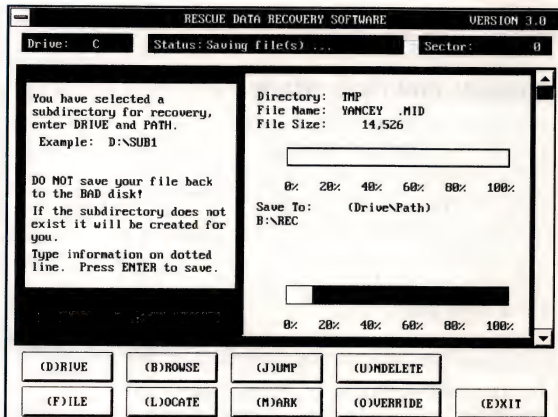


Figure 5. Saving to a floppy disk in B: drive

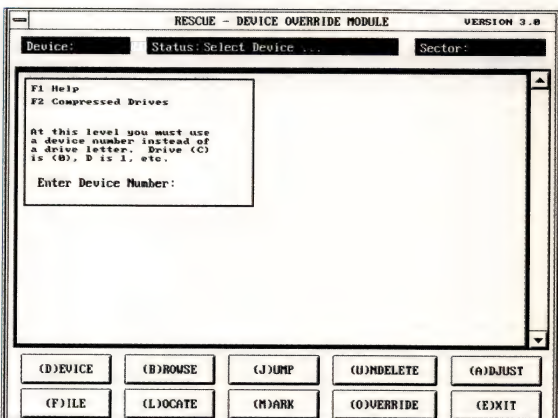


Figure 6. Entering a device number

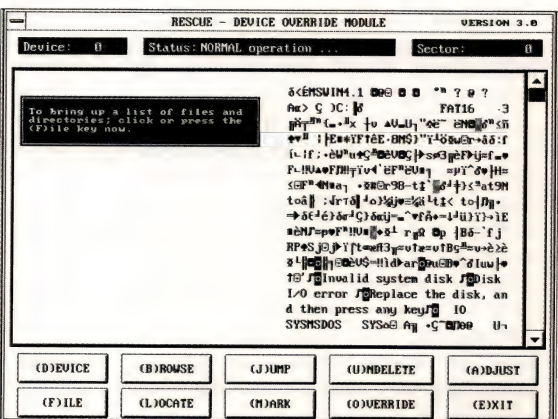


Figure 7. Boot sector of device 0 (C: drive)

make this choice when attempting to recover files from a drive with a missing or corrupted primary partition. When this is done, a new module is launched and the title bar then reads RESCUE—DEVICE OVERRIDE MODULE and a tenth button (A)DJUST appears (see Figure 6). You enter the device number in the text box which is displayed. If the bad drive is your primary hard drive, you enter 0.

The two buttons, (O)VERRIDE and (A)DJUST are only needed in special circumstances. The first is required if Sector 0 has been destroyed, i.e. when viewed only zeroes or possibly one symbol or a group of symbols is repeated. Pressing O will then allow you to manually enter the drive parameters. (Rescue the values which it thinks are correct for each specification to the right of the entry, e.g. Sectors per Cluster ... 16.) The second button is used to search for Sector 0 if it is not where Rescue is pointing. You then scan with the scroll bar to search for it, or press L and search for the word "ready" (part of the message ... and press any key when ready, which appears towards the end of Sector 0).

The (U)NDELETE button has an obvious additional function. This is probably not a vital addition for most of us, but it is convenient one.

The file lists for directories and sub-directories of a Windows 95 operating system look rather odd, due to the capacity to include up to 256 characters in a file name. The compressed version of the file name (as you normally see it when invoking DIR from the DOS prompt) always appears in the listing, and this is the only format that you save, ignoring several uncompressed versions which appear as an ASCII translation immediately above it. So, you could save PINSTR-1.BMP but ignore "AP i n s. t", which may appear immediately above it.

CLUB PRESIDENT'S UPDATE

Stan Johnstone



Please accept my apologies for the short report last month—after being spared from a flu attack for many years, this year it all caught up and I was hit for a six.

Changes and their effects

Recently while driving I heard (ex-president) **Charles Wright** on his talk-back segment on 3LO. A listener had rung in with an unexplained problem in Windows 95, and Charles' excellent suggestion was for users to keep a hand-written log of all the changes made to their system.

Too often the installation of some new software or even a minor change to the configuration can have unknown and far-reaching effects. By keeping a log, at least you may be able to go back and undo a problem you have inadvertently introduced. Charles said that he had a problem when shutting down his system, which he had been unable to identify. I have the problem where the system will only recognise my printer on LPT2 for some reason or other.

Another well-known Melb PC member has told me that he regularly removes and reinstalls Windows 95 and all his software in order to make sure all residual and unused files are removed. This must be a mammoth task when you consider all the settings and patches you change or add over a period of time, but he assures me that the gain in system reliability and recovered disk space makes it all worthwhile.

The handbook I had for DOS 5.0 is five times as thick as the one that came with Windows 95, despite the difference in complexity—all the rest of the information is in the HELP files. This is usually the pattern these days with modern software—CD-ROMs are cheaper than print. However scanning through an index is nowhere near as easy as flipping through the pages of a book, where a screen dump or table may catch your eye and guide you to the answer you are seeking.

These days most of us just install software and then try to run it intuitively. Often there is a tutorial that may help, otherwise if you are in trouble then you are stuck with the help index. This makes life difficult, particularly for new users

who may have no idea of the critical word or where to start looking in the help areas.

I have gone into some detail about how unknown material may be affecting the performance of your own machine for a number of reasons, so:

- Try to be aware of all the implications of any change.
- Don't leap in and make changes just because something is not performing exactly as it was yesterday.
- Read notices of changes to systems when they are posted for your benefit.

Internet

Yes—you have have guessed it—I was building up to a reference to our Internet "Message of the Day" (MOTD) and other similar postings from other sources where system changes and other matters of interest are announced. Last month I mentioned how the well-publicised change to PAP dialling was not seen or acted on by many users.

Now, as we prepare for the move to the new Dorcas Street premises, there will be a series of changes announced—new phone numbers, etc, which will continue over a period of time. We don't change the MOTD every day, however we are working on a couple of ideas to make it more attractive to visit each time you log in—so please make sure your Home Page is set for that vital address:

www.melbpc.org.au/motd/

We had a couple of unfortunate occurrences this month. First, a hard disk crashed on the main server after running non-stop for almost three years. Naturally Murphy ruled, it happened on a Saturday afternoon and replacements were not available until Monday. However, normal fallback systems started automatically, such as backup password files immediately being visible from another server and thus providing continued access. The immediately apparent effect was the inability to access our own web pages and to download mail, but external browsing and news continued uninterrupted.

Most importantly, no-one suffered any loss of mail—something the "big boys" have not been able to achieve when they have had their failures. At the same time

we learnt some things that we can implement next time it happens. Yes—next time! No-one can ever say it won't happen again—equipment fails, it's a fact of life, despite the level of redundancy that is allowed for in the design. Our backup systems worked perfectly this time, and next time we will have more and better procedures ready to start automatically to reduce the effects even more.

For the past six months we have kept the number of users to about 4000. With the impending move it was not practical to add new lines, and so we have deliberately held the number down to that level. Now, with the new lines and equipment available in the new office, we will be able to actively promote and extend our Internet service still further.

Despite the constant number of users, during recent months our traffic has risen steadily by about 10 per cent each month. This has put an ever-increasing load on the system and the ethernet link that forms the backbone. For this reason it was planned to change the backbone to 10baseT at the time of the relocation and reinstallation of the equipment. However the rate of increased loading could not wait until then, and all manner of strange happenings resulted, causing the system to crash several times over a couple of days. Replacing this cabling was done at 6.30 pm one evening by **Richard Solly** and **Jason Lee**, but I doubt if anyone who was on line noticed it happen.

Some of the new equipment has already arrived and more will be following shortly. As I write this, the new phone lines are already available and are currently being installed. It is possible the Internet service will be working in part from Dorcas Street in conjunction with Albert Road some time before the main move.

Our move to Dorcas Street

Today (as I write) there were 15 tradesmen on the site when I visited it, and it is most exciting to see all our planning finally taking shape. Telstra technicians were outside in the street huddled in their little tent, and carpenters, electricians, and air-conditioning engineers were toting and hauling cables and equipment all over the building.

The builder is Downie Commercial Interiors. After responding to our advertisement for expressions of interest, **Olly Downie** checked out our web site to find out more about us, and shortly afterwards signed up as a member. This is the first time Olly has used e-mail on a project, and it has proved an excellent method of passing reports and instructions back and forth.

Provided all continues to go as smoothly as it has to date, it appears he will have everything ready for the move to take place on the week-end of 4/5 October. It is disappointing that the planned renovations to the facade by the landlord are still incomplete as this renovation will enhance considerably the appearance of the building.

Regular visitors to the Albert Road offices over the past couple of months will have noticed the increased difficulty in getting meter parking during the day. This followed the closure of some car parking areas nearby. Fortunately the parking situation is better in Dorcas Street if you need to visit the office during the day, and at evenings and weekends there are no problems at all.

Open house

In past months I have run a series of Orientation Days on Saturday mornings at the old office. As we expect a lot of interest in the new premises, we will hold an Open Day for all members on Saturday 11 October 1997 from 10.00 am to 3.00 pm. No need to book, as there won't any catering, but we hope you will come and see what we have been doing to provide better facilities for you.

Murphy will probably do something to see that everything is not completely finished, but by that time we should have started to settle in properly. But come along and take us as you find us, and we hope you will share our enthusiasm for our new home.

Home Help

Last month **Ian Felsenthal** wrote seeking volunteers to assist members who are not particularly mobile and need general help with their computing interests. When I promoted this some months ago there was an expression of interest. Now Ian has developed the idea a good deal further and the program is running smoothly with about 30 volunteers offering their services to members.

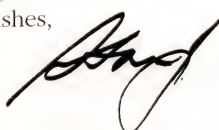
It is particularly rewarding to see this type of

response, and I am sure that both visitors and "visitees" are finding the experience equally rewarding. Please remember that this is really just an extension of our Dial Help program with services provided by volunteers of all levels of experience, on a member-to-member basis.

It has been found necessary to refuse assistance where the responsibility for a problem should have been accepted by the supplier—we cannot get involved in disputes outside of our organisation. Neither is it intended to provide services equivalent to the professional services offered by those who advertise in *PC Update*. Too often these days problems generated from changes to software or an operating system do require the services of an expert.

But hold on, that was what I started out by talking about—wasn't it?

Best wishes,



Special diary date

When: Saturday
11 October,
from 10 am

What: Open day in
our new
premises

Length: Until 3 pm

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600/660/670/690/692	51629A	4 Black \$45	Stylus Col II/IIIs	SO20047	6 Black \$35
600/660/670/690/692	51649A	4 each colour \$45	Stylus Col II/IIIs	SO20049	4 each colour \$45
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820/850/870/1150	51645A	3 Black \$45	Stylus Col 820/1500	SO20049	4 each colour \$45
820/850/870/1150	51641A	2 each colour \$45	Stylus Col 1500	SO20062	2 Black \$35
1200 C/M/Y/B	51640	3 of 1 colour \$45	Stylus Col 400/500/600	SO20093	6 Black \$35
Canon			Stylus Col Photo	SO20093	6 Black \$35
BJ10/Stamwriter	BC01	5 Black \$35	Stylus Col 200/500	SO20097	4 each colour \$45
BJ200/230/210/240	BC02	5 Black \$35	Stylus Col 800/1520	SO20108	4 Black \$35
BJC210/210SP	BC05	4 each colour \$45	Stylus Col 800/1520	SO20089	2 each colour \$45
BJC240 Photo	BC06	4 each colour \$55	Stylus Col 400/600	SO20089	2 each colour \$45
BJC600/610/620	BJI201BK	6 Black \$35	Stylus Photo	SO20110	4 each colour \$55
BJC600/610/620	BJI201CMY	2 each colour \$45	Lexmark / IBM		
BJ300/330	BJI642	3 Black \$35	4076/1020	1380620	3 Black \$45
BJC4000/4100	BC20	4 Black \$45	4076/1020	1380619	2 each colour \$45
& 4200/4550	BCI21Bk	30 Black \$45	C-itech / Xerox		
	BCI21C	10 each colour \$45	CJ300/4004	CJ300/8R7638	3 Black \$45
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MEMBERS' LETTERS



Ms C. Daniels
Editor
PC Update
Melbourne PC User Group Inc.
P.O. Box 283
SOUTH MELBOURNE 3205

Dear Ms Daniels,

Not being sure as to whom I should address my question in this instance I feel perhaps someone of PC User's members may have experienced a similar problem to that which is about to evidence itself. My printer, a Star LC24-200 (colour) has served me well but now hiccups occasionally, compressing a line of type here and there. The reason I am being so long-winded with my query is that I am trying to trick my old friend into letting down its guard and falling into error. Not being versed in computer problems I am unable to conjecture whether this blip is caused by a mechanical or a software malfunction. You may notice that in the third line down it appears to have decapitated the letters but not, as yet, compressed them, which is a more aggravating trick. Maybe it is just lying doggo, maybe it knows what I am up to and is just trying to make me look foolish. The same thing happens when one takes one's car to the mechanic to have whatever annoying noise it is currently making looked into and of course it won't perform while it is in the garage but the moment you get it onto the road, there it goes again.

Ha ! See ? There it is. Thank you, printer.

I should be most grateful if you could advise me as to what this problem is. If it is mechanical is there someone reliable to whom I might take it, preferably in my locality. If it is the software, what should I do ?

Many thanks for any help you may be able to afford me. I enclose a S & A.E for your reply.

Yours faithfully,

M. Darbyshire
Murray Darbyshire

P.S. See ?

Just a light-hearted observation

Ron Kitchenn

It's last week of August; September's quite near,
But new *PC Update* is already here.
Now, August's was fat, showing lots of new ads;
And that would have pleased the financial lads
Who drive the machine at the Melbourne PC.
September's the same, I'm delighted to see.

But wait! What is that that I shudder to sight
On very front cover, at top and to right?
Without even turning to savour page one:
Aberrant apostrophe, dropped like a tonne
On sensitive reader, who staggers, knocked out
By someone who callously chooses to flout
The rules of the language, which, common to all,
Provide us with clarity, meaning, withal.

We find it with fruiterers, sellers of pies,
And vendors of meat, and with traders in ties;
When people hawk apple's and paper's and pie's,
And sausage's, steak's and glass's for eye's.
Alas, for our language (in metro or rural),
We see those apostrophes used for the plural.

But readers of Update seek something much better.
We squirm when we see the poor errant typesetter
Has plural "PC's" where there should be "PCs".
Dear Sir or Dear Madam: No more of it, please! □

*(Ed: I've emptie'd the erran't a'postrophe's bin,
Had my eye's test'd (and sober'd my grin).
I've a large magnifier and a much brighter light,
With these, and some luck, we might get it right!*

—PSJ

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Geek speak

LEARN THE LINGO

Carol Daniels



If you're new to computing (and even if you're not) you might be thinking that whatever language Geeks speak, it isn't English. Computing has always been a jargon lover's paradise, and it's become even more so, with the growing popularity of the Internet.

So this new, semi-regular feature in *PC Update*, "Geek Speak" should come in handy when you're trying to decipher an article, software manual or hardware specification.

This is also an invitation to all members to participate, contributing terms (and definitions!) from their areas of specialisation, so that we can start building a broad knowledge base of terminology (and jargon) as a resource for our members.

I also encourage members who come across a term they don't understand, to do some research and find a definition, and contribute as well. The terms can be easy-peasy phrases or expert's explications. If you don't know what it means, chances are other members are in the same boat.

If you can't find a definition, let us know (via normal communication channels) and some one may be able to track down a definition for you (no guarantees!).

Attachment

A file attached to an e-mail message.

ASCII

An acronym for American Standard Code for Information Interchange, a file type that contains standard text characters as data (the format required for *PC Update* submissions).

Bandwidth

A network connection's maximum capacity for carrying data traffic.

BBS

Short for "Bulletin Board System", a local computer system. Traditionally these were dial-up systems where users could dial-in to the system to "chat" with others and download or upload files. Before the Internet became so popular, a co-operative system called "FidoNet" was established to facilitate exchange of messages and files between BBSS. State

of the art systems now offer all the functionality of traditional systems, plus function as Internet gateways.

Binary

A file type in the form of pure data—not text—that needs to be converted to image, sound or application.

BMP

A file name extension, used to designate a bitmapped graphics file.

bps

Bits per second—measurement of data transfer speed on a modem, for higher speeds also expressed as Kbps (Kilobits per second).

Chat

Live communication involving two, or more, people where messages are typed back and forth, in real time, in a conversational style. As one participant types a message, the message appears on the other participant's screen, and vice versa. Chat can be in public or private chat rooms.

Click

Used to designate a single instance of a user pressing down on a mouse button, to select an action on a menu, or to select a hypertext link (image, file name, navigational icon, etc).

Client

In network computing, a client refers to an individual's computer and the software it uses to get information from another computer, called a server.

Compression

A way of reducing the size of a file by replacing commonly occurring characters with fewer bits. Compressed files take up less space, and are faster to transmit.

Cross Post

Sending the same item to several newsgroups simultaneously. It's not encouraged, in fact it can get you flamed on several technical violations of netiquette.

Domain

The hierarchy in which a particular

machine is placed. Example: *melbpc.org.au* is "Melb PC" in the *org.au* (an organisation in Australia) domain.

Domain Name Server

A computer that stores the names and corresponding IP addresses of other computers.

DNS

Short for Domain Name System (or Service), an Internet service that translates domain names into their corresponding IP addresses. Every time you use a domain name, a DNS server must translate the name into the corresponding IP address. For example, the domain name *www.microsoft.com* would be translated to 198.105.232.4. You can test that they are the same, by substituting 198.105.232.4 for the name in the URL *http://www.microsoft.com* when you are using your web browser. The DNS system is, in fact, a network. If one DNS server doesn't know how to translate a particular domain name, it asks another one, and so on, until the correct IP address is returned.

Download

Using a modem to transfer a file or files from another computer to your computer.

Emoticons

Combinations of ASCII characters that look or are meant to look like faces, or expressions.

Encryption

Translating data into a secret code. To read an encrypted file, you must have access to a secret key or password that enables you to decrypt it.

FAQ

An acronym for "Frequently Asked Questions". It might more accurately be called FAaAQ, or Frequently Asked and Answered Questions. These files are compiled for newsgroups, mailing lists, websites, software, hardware, movies, famous people, almost anything that has even a moderate following. The idea behind FAQs is to reduce the amount of time spent answering the same questions over and over.

Firewall

A system that serves as the first line of defense in protecting private information. A firewall prevents unauthorised access to and/or from a network. All messages entering or leaving the network pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria. For greater security, data can be encrypted.

Flame

As a verb, the act of sending a message (often sarcastic or downright rude) which is designed to "burn" the addressee. As a noun, the actual message designed to do the "burning". If the addressee retaliates in kind, or if others join in the process, it's called a "flame war".

FTP

Stands for File Transfer Protocol, one of the standard methods for transferring files between different computer systems on the Internet.

Gateway

A computer that serves as a transfer or entrance point to more than one network.

GIF

A file extension, used to designate image files in "Graphics Interchange Format".

LAN

Acronym for Local Area Network, a network of two or more computers usually contained within a single physical site (one or more buildings), see WAN.

Lurking

Monitoring messages in a newsgroup, BBS echo, mailing list, etc, without participating in the discussion.

MIME

An acronym for Multipurpose Internet Mail Extensions, a protocol for sending sound, graphics, and other binary data as attachments to e-mail messages.

Mirror Site

A web, FTP, Gopher or other site on the Internet that is an exact copy of another. Mirror sites are often created to reduce the load on a popular site, or reduce download times by creating a local site in another country.

Newsgroup

A discussion group on Usenet (a worldwide network of newsgroups). The discussion forums are organised into subject hierarchies, including news, rec (recreation), soc (society), sci (science), comp (computers), etc.

NNTP

Short for "Net News Transport Protocol", the transmission standard for Usenet news messages.

SMTP

Short for "Simple Mail Transport Protocol", a standard transfer method for e-mail on the Internet.

Usenet

A worldwide network of newsgroups.

WAN


Acronym for "Wide Area Network", a network of two or more computers connected across a large geographic area, usually via dedicated lines.

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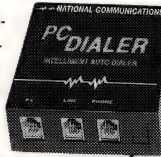
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


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Lotus Smart Suite 97

SOFTWARE REVIEW

Hugh Bayless



Lotus Smart Suite 97 is a terrific collection of applications

This is an imposing collection of top-notch software applications developed around Lotus 1-2-3. It starts with Lotus Smart Center, the command centre that provides easy access to all of Smart Suite's applications by opening and closing

drawers for the applications you want to use at the moment. It's a clever idea, but you may want to turn off the sound. The rasp of drawers opening and closing can become annoying after a while.

The real workhorses of Smart Suite 97 are:

- 1-2-3, the world-famous spreadsheet
- Word Pro, a powerful and friendly word processor
- Approach, a relational database.

These are supplemented by some excellent more specialised applications: Freelance Graphics, a presentation graphics package; Organizer, a personal information manager; and Screen Cam, a communications tool that you can use to record and play back movies of your screen activity.

One of the features that makes Smart Suite so powerful is its ability to share data among applications. Once you have created the data, you can copy, link, or embed it wherever you want to use it—in 1-2-3, WordPro, or Approach—or all of them together.

Lotus 1-2-3 should need no introduction. For years, it has been the standard against which all other spreadsheets are compared. And, over the years, it has steadily improved, so that today it still retains its place as one of the leading spreadsheet applications. For the user of any of the other Lotus applications, it provides the convenience of shared menu structure, icons, status bar, charting and the InfoBox. With the integrated design, transferring data among applications

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becomes about as simple as any complex and comprehensive application can be.

Word Pro is a WYSIWYG (what you see is what you get) word processor that developed from its early beginning as Samna Word, through the years as Ami Pro, to today's Lotus Word Pro. It has come a long way from its beginnings as a DOS program to today's big and impressive application for Windows 95/NT. I have always been impressed with the quality of this evolving word processor, and this newest version continues the tradition—it is one fine tool for anyone who writes anything from personal letters to professional newsletters and brochures.

In Word Pro there are many new features. Some of them include: Cross Referencing, with which you can reference a page number, section number, or title in your document from another location within the document. No matter how much editing you do, the reference corrects itself for the new location. Drop caps are a nice feature, long available only in the big publishing programs like PageMaker, but now available to the PC user with simple word processing. Word Pro now contains Internet features that enable the user to read HTML documents. You can create your own Web pages and import/export JPEG images.

Frames have long been a feature of Ami Pro and Word Pro, but now you can link frames so that text automatically flows from one frame to the next as you insert and delete text. This becomes invaluable if you wish to continue an article from page 1 to page 4 of a booklet. And, you can use the booklet feature to set up your document so that the printing comes out right when you fold the pages in half and staple them together—until now, a feature that was only available as a separate piece of software from another vendor. And a decorative feature has been added—Watermarks. Watermarks are those lightly-printed graphics that you can apply to pages, tables, table cells, frames, headers, footers, and columns. An example would be the word CONFIDENTIAL watermarked onto each page of a document to remind anyone handling it that the information it contained was confidential in nature.

To go into the details of everything Word Pro does well would require a large book. Even if you don't need the entire Smart Suite, consider buying Word Pro for your word processor.

Approach is a relational database that is tightly integrated with 1-2-3 and Word Pro, a combination that provides great flexibility. You can now automate tasks in Approach using Lotus Script, save and

open Approach files in .APT format on the Internet, save and open .HTM files, and publish Approach views to the Internet. Approach can also use Lotus Notes as a document reporting and analysis tool, as well as for document management and replication.

Freelance Graphics is a presentation tool that can use SmartMaster templates in creating effective presentations. If your work involves presentations, Freelance Graphics is a good way to develop them.

Organizer is one of those applications that will help you manage your time by tracking appointments, showing tasks, listing phone calls, displaying special dates, and storing contact information. If you need such an organiser, this is a good one.

Personally, I prefer the old fashioned way—hang a calendar on the wall and scribble notes on it, but probably I am just not yet caught up with the rest of the world.

Altogether Lotus Smart Suite 97 is a terrific collection of applications. □

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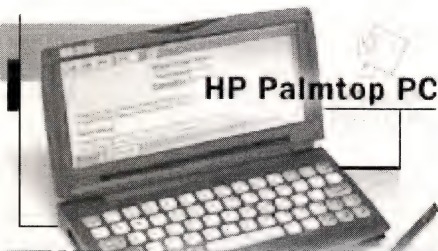
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What's in a memory?

EDRAM EDO
VRAM 3DRAM
SRAM WRAM
SDRAM RAM
RDRAM DRAM
VDRAM SIMM

TUTORIAL

Peter Stanski

new technology...

several years to

filter into our PCs

When looking to add more memory to your computer you need to make an important decision. Do you buy DRAM or EDO RAM? This article discusses their physical differences and some of their relative benefits.

Setting the scene

Talking about RAM (Random Access Memory) is never easy without defining some important terms and components. The brain of your computer is the micro-processor or the CPU. In the case of the more recent computers it may be a Pentium Pro, a 486 or an older 386. These execute a program instruction every time a system clock issues a pulse. A Pentium 100 MHz would have a clock that pulses it to execute an instruction 100 million times per second.

Unfortunately, the clock frequency does not reflect the true performance of your computer. This is mainly because some

instructions take longer to complete than others and because of a thing called a memory wait-state. Wait-states occur when the CPU doesn't receive instructions and data from memory as fast as it can process them. The CPU waits (hence wait-state) until the information becomes available.

Traditional DRAM

Dynamic Random Access Memory (DRAM) has been used with computers for a long time. Those who take a closer look at those little bits of plastic and silicon called Single Inline Memory Modules (SIMMs), may have noticed the text, 70 ns (nanoseconds). This is how fast the memory can respond to requests made by the CPU for a read or a write operation. Upon a closer examination of a SIMM, you may notice the number of little chips. Depending on the SIMM's capacity you may find anywhere from two to nine chips, with eight the most common. Historically, RAM used on PCs used nine bits per byte—eight to store data and the ninth for parity checks. These days most SIMMs have no parity, which makes them cheaper and so eight chips are far more common.

EDO-RAM

Extended Data Out Random Access Memory (EDO-RAM), is the name given to "DRAM like" memory chips. At a quick glance they look exactly like DRAM SIMMs, but on closer examination you may find a little "EDO" on the back of the chips. If you can not identify it as EDO, check with an expert. The essential difference between

EDO-RAM and DRAM is how they perform address resolutions. Because of internal modifications to Row Address Strobe (RAS) and CAS (Column Address Strobe) signal handling, EDO outperforms traditional DRAM in terms of memory operations. One IBM engineer claims that Pentium owners with EDO RAM, should find a 10% speed increase. This translates to shorter wait states for the CPU and faster execution times for programs.

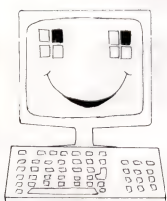
Interleaving, pipelining and burst mode

To optimise memory access and reduce wait-states, there are three additional tricks that some brilliant electronic technicians have devised—interleaving, pipelining and burst mode.

Interleaving may seem like a strange concept for non-technicians but has good reasons for its existence. Interleaving allows each chip to hold one bit of a byte. Since there are eight bits in a byte, it is common to see eight memory chips on a SIMM. For SIMMs with fewer than eight chips, this means that you have a different capacity memory chip, which uses a slightly different mode of interleaving. There are some arguments to suggest that more chips on a SIMM is better since each one does less work. This is true to a certain degree, but extremely hard to test. Interleaving divides memory operations equally amongst the chips, and should yield better performance. On the other hand not all memory chips are created equal.

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Manufacturers use different components which further complicates the issue. For simplicity's sake, a two-chip 60 ns SIMM is definitely going to outperform an eight-chip 70 ns SIMM. When choosing between SIMMs of equal response speeds at 70 ns, bet on the one with more chips.

Pipelining is another technique to reduce CPU wait-states. A CPU executing an instruction may request another from memory, just before it completes the current one. This means that some potential wait-states can be eliminated. When such a situation does occur, we call it a zero-wait-state. On older computer systems, where the CPUs executed much slower than today, some vendors boasted that their systems featured zero-wait-states.

Burst mode is a new addition to the above. Actually burst mode and pipelining are quite commonly used together and are called Pipeline-Burst Mode (PBM). CPUs traditionally only performed byte operations but later increased their word size from eight bits, to 16, 32 and now 64. This forced access to memory from a single byte to four bytes per instruction. Therefore, burst mode was created. It simply means that a request to access four bytes of data will take 4-2-2-2 (10) clock cycles. Ideally hardware manufacturers would like to see it as 2-1-1-1 (five cycles). But what do these numbers mean?

Well if we are to fetch four bytes then it makes sense to assume that it should take one clock pulse (cycle) to access a byte of data. That adds up to only four cycles, why do they then expect five cycles instead? The simplest answer to this question is that memory has some overhead in actually locating a byte of data, which is the source of the extra cycle. The first time it has to look for it takes the longest, while any subsequent access is faster (other access fits within one cycle).

Getting technical

Now having looked at memory, we can better understand why the MHz speed of the clock does not reflect the true speed of your computer. The wait states imposed by RAM play a significant role in CPU performance. Add to that some instructions such as divides which take many clock cycles, and your dreams of a lightning fast machine slowly crumble away. Don't despair, on-chip Level 1 and on-board Level 2 cache reduce these wait states significantly. So again, we can start to focus on faster CPUs and higher clock rates of tomorrow.

RAM of the future

Besides DRAM and EDO-RAM, we are likely to encounter SDRAM which is slowly making its way into the commercial

market. The JEDEC (Joint Electronic Devices Engineering Council) has standardised the SDRAM mode of operation enabling a common interface standard. Some high powered servers are already utilising SDRAM for their main memory which can easily outperform EDO.

Other less known DRAM-like memory technology are EDRAM (enhanced DRAM), CDRAM (cached DRAM) and RDRAM (Rambus DRAM). Additionally graphics cards now employ VRAM (Video RAM), SVRAM (Synchronous Video RAM), WRAM (Window RAM) modified VRAM for Windows-like GUI environments, and 3DRAM for 3D graphics applications (implements Z-buffering in hardware).

Some of these technologies are reasonably new, and will require several years to filter into our humble PCs. Until then we can safely assume that EDO and VRAM will last us for another two or three years, when we will once again face the prospect of another upgrade.

About the author

Peter is a PhD student at Monash University specialising in aspects of mobile computing and distributed environments.

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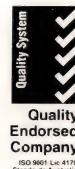
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Seeing the Basics: Visual Basic Animation

VB 5.0 TIPS AND TRICKS

Tony Stevenson

This column provides techniques, tips, and tricks to help you gain familiarity and experience with MS Visual Basic, a popular language that enables you to write quickly both Windows and World Wide Web applications.

Animation using the move method

The aim of this month's column is to develop a small project that demonstrates simple animation using the Move method. The application only consists of one form, a command button, and an arrow (at least from the user's perspective). When the command button is clicked, the movement of the arrow will be initiated, and it will travel around the perimeter of the form in an anti-clockwise direction (see Figure 1).

The actual format that the animation takes is really inconsequential, that is, whether the arrow travels up or down or clockwise, etc, is not the major issue. What is important is to understand the underlying technique. This can then be used to develop whatever style of animation is best suited to the task at hand.

Designing the application

Start a new standard project, and add the following controls to the project's default form: a command button, four image controls, and a timer control. Place the command button in the middle of the form. The placement of the other controls is not important because they will have

their Visible property set to False (initially at least). Your completed form should resemble Figure 2.

Set up the control's properties as indicated by the following table:

Object	Property	Setting
Command Button	Caption	Start Animation
Image	Name	imgArrowDown
	Picture	Arw04dn.ico
Image	Name	imgArrowUp
	Picture	Arw04up.ico
Image	Name	imgArrowRight
	Picture	Arw04rt.ico
Image	Name	imgArrowLeft
	Picture	Arw04lt.ico
Timer	Enabled	False
	Interval	250

Note that the Picture properties of the Image controls have been set with icon files from the Arrows directory that ships with Visual Basic 5.0.

Adding the code

Add the following code to the General Declarations section of the form:

```
Option Explicit
Dim pointingLeft As Boolean
Dim pointingRight As Boolean
Dim pointingUp As Boolean
Dim pointingDown As Boolean
```

The four boolean variables declared here are used to keep track of the direction in which the arrow is moving: to the left, upwards, to the right, or downwards. Boolean variables can only have one of two valid settings, these being either True or False.

The code in the load event of the form is used to specify the initial direction in which the arrow is to travel. This is done by setting the appropriate Boolean variable to True. In our demonstration program, that direction has arbitrarily been chosen to be towards the right of the screen. Make the right pointing arrow visible by setting its Visible property to True.

```
Private Sub Form_Load()
    pointingLeft = False
    pointingRight = True
    pointingUp = False
    pointingDown = False
    imgArrowRight.Visible = True
End Sub
```

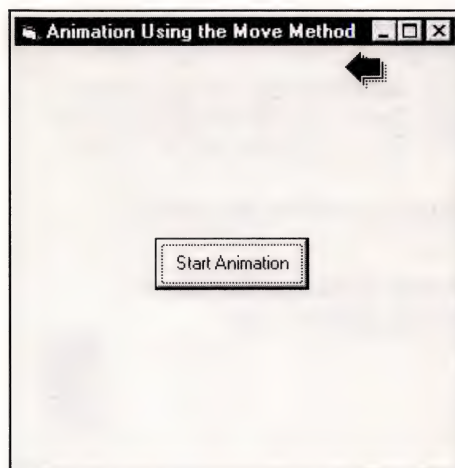


Figure 1

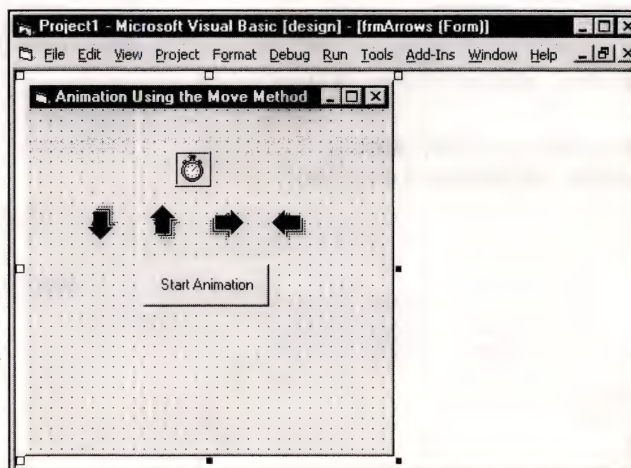


Figure 2

Basic SIG

The Basic SIG meets at the Melb PC SIG room on the second Tuesday of each month at 7.30 pm. For more details contact Andrew Callaway during business hours: (03) 9619 4067.

The command button is clicked by the user to initiate the animation. The only code needed here is to enable the timer control:

```
Private Sub Command1_Click()  
Timer1.Enabled = True  
End Sub
```

It is the code in the Timer event which is responsible for the animation processing. Because the Timer's Interval property has been set to 250, this is the number of milliseconds between Timer events. Once the Timer is enabled (by clicking the Start Animation button), this results in the code in the Timer event being executed every 250 milliseconds. You can experiment with the setting of the Interval property to alter the speed at which the arrow travels. (See Listing 1.)

The code in the Timer event is logically divided into four parts, one for each direction in which the arrow could be travelling at any point in time.

The code in each part has a similar structure.

The initial If statement (If pointingRight = True Then..., If pointingUp = True Then..., etc.) detects the current direction of movement of the arrow.

The following line is where the Move method is used to position (move) the arrow. For example, when the arrow is moving towards the right, its position is incremented a small amount by adding 80 to its Left property. Because the code is executing every 250 milliseconds, the position is being altered by this small amount in each iteration. This is what causes the animation effect.

The next If statement in each part is used to test if the arrow has reached a boundary. Once it has, the following activities are processed:

- The boolean variable for the current direction is set to False
- The arrow which has been moving is made to disappear by setting its Visible property to False

- The boolean variable for the new direction is activated by setting it to True
 - The new arrow to be moved is positioned to the co-ordinates of where the last moving arrow was before it disappeared
 - The new arrow is made to appear by setting its Visible property to True.
- In a similar fashion, the same sort of logic is applied to the up, left, and down pointing arrow sections of code.

Once activated, the animation then continues until the program is stopped.

Enhancing the application

One easy enhancement to the program is to add a Slider control to the application. It only takes a couple of lines of code so that when the Slider's value is changed by the user, the Interval property of the Timer control is also changed to reflect the Slider's new value. This gives the user a convenient way of changing the speed at which the arrow travels.

E-mail address

Contact Tony Stevenson by email at mkdsoftware@trump.net.au □

```
Private Sub Timer1_Timer()  
If pointingRight = True Then  
imgArrowRight.Move imgArrowRight.Left + 80  
If imgArrowRight.Left >= (frmArrows.Width - imgArrowRight.Width) Then  
pointingRight = False  
imgArrowRight.Visible = False  
pointingUp = True  
imgArrowUp.Move imgArrowRight.Left, imgArrowRight.Top  
imgArrowUp.Visible = True  
End If  
End If  
If pointingUp = True Then  
imgArrowUp.Move imgArrowUp.Left, imgArrowUp.Top - 80  
If imgArrowUp.Top <= 0 Then  
pointingUp = False  
imgArrowUp.Visible = False  
pointingLeft = True  
imgArrowLeft.Move imgArrowUp.Left, imgArrowUp.Top  
imgArrowLeft.Visible = True  
End If  
End If  
If pointingLeft = True Then  
imgArrowLeft.Move imgArrowLeft.Left - 80  
If imgArrowLeft.Left <= 0 Then  
pointingLeft = False  
imgArrowLeft.Visible = False  
pointingDown = True  
imgArrowDown.Move imgArrowLeft.Left, imgArrowLeft.Top  
imgArrowDown.Visible = True  
End If  
End If  
If pointingDown = True Then  
imgArrowDown.Move imgArrowDown.Left, imgArrowDown.Top + 80  
If imgArrowDown.Top >= (frmArrows.ScaleHeight - imgArrowDown.Height) Then  
pointingDown = False  
imgArrowDown.Visible = False  
pointingRight = True  
imgArrowRight.Move imgArrowDown.Left, imgArrowDown.Top  
imgArrowRight.Visible = True  
End If  
End If  
End Sub
```

Listing 1

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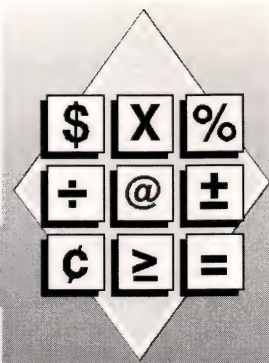
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Annual Financial Report



CLUB ADMINISTRATION

William Ford FCPA, Secretary and Public Officer

In the absence of a treasurer, I, as public officer of Melbourne PC User Group Inc, am pleased to submit and report on the financial statements for the year ended 30 June 1997. These financial statements have been prepared in accordance with Australian Accounting Standards and accurately reflect the financial results of the Group's activities.

Summary

The Group has recorded a surplus in operations, \$258,335 compared with \$270,233 in 1995/6. As a result there is an increase in the excess of Current Assets over Current Liabilities from \$299,657 in 1995/6 to \$558,458. The operating surplus has been more than sufficient to fund an investment in new equipment which has been allocated to the various areas of the Group's activities. Most importantly, membership retention and membership growth continues to be high. The total number of members as at 30 June 1997 is 11,482 of which 860 are individual family members. This compares with 9995 members of which 475 were family members as at 30 June 1996.

PC Update

Income from advertising and sales in newsagents increased compared with the previous year and this outcome was enhanced by containment of production costs compared with the previous year.

Training

The training area was altered to provide a more congenial working area, and while most courses have been well supported, others were cancelled through lack of interest. Nevertheless, income increased significantly compared with the previous year and the

training service continues to make a positive financial contribution to the Group's administration costs.

Disk and shareware sales

These represent a continuing service to members and provide a positive contribution to the Group's financial results.

Internet

This high profile area of the Group's activities was a major component of the improvement in gross income for the year. At the same time the costs of providing the service increased significantly, and the constant challenge is to maintain a cost-effective and reliable Internet service.

Move to new premises

Since 30 June 1997, \$250,000 has been allocated from reserves to cover the costs of re-locating to the new premises in Dorcas Street. This consists of removal, fitout and the re-location of Internet and BBS lines, hardware and air-conditioning. It is anticipated that further capital expenditure will be made to provide additional Internet lines, more up-to-date hardware and an improved PABX and security system.

Staffing

A significant contributor to the financial results and smooth running of the Group is the effort of paid staff and volunteers. Our thanks to them all for a job well done.

Conclusion

Past sound financial planning has equipped the Group to be in its present strong financial position as it moves into new premises. For the future, the key challenges will be in seeking to provide even better and more relevant services to members. □

Melbourne PC User Group Incorporated Income and Expenditure Statement for the year ended 30 June 1997

	1997 \$	1996 \$
INCOME		
Non-Operating	63,355	71,553
Disk Sales	4,754	7,178
Magazine Income	112,657	90,108
Membership	529,890	460,760
PD Sales	29,920	25,921
Training	69,302	51,319
Internet	437,864	262,158
TOTAL INCOME	1,247,742	968,997
EXPENSES		
Advertising & Awards	7,888	3,327
Audit & Accounting	3,550	2,500
Connection Costs	101,452	21,895
Bad Debts	1,050	1,240
Bank Fees	12,512	12,769
Cleaning	4,676	4,617
Commission Advertising	15,915	13,823
Conferences & Meetings	9,094	12,572
Consultancy	27,124	25,600
Debt Collection Expense	341	(887)
Delivery Expenses	61,240	59,664
Depreciation	176,686	108,344
General Expenses	2,446	319
Heat Light & Power	7,013	2,979
Hire Of Equipment	100	-
Insurance	6,129	4,612
Legal & Litigation Costs	3,323	2,753
Postage	23,556	21,014
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Purchases Disks	9,303	10,256
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Subscriptions & Donations	2,398	412
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Travel & Accommodation	13,884	13,056
Wages & Salary	138,979	82,368
Workcare	987	408
TOTAL EXPENSES	985,192	697,264
OPERATING INCOME	262,550	271,733
Less Transfer To Reserve	4,215	1,500
NET INCOME	258,335	270,233

Melbourne PC User Group Incorporated

Balance Sheet as at 30 June 1997

	1997	1996
Current Assets	\$	\$
Debtors	7,074	10,387
Less Provision for Doubtful debts	(3,000)	(3,000)
	4,074	7,387
Commonwealth Bank of Australia	89,053	134,889
Commonwealth Bank Bills	854,656	519,269
Commonwealth Term Deposit	32,500	-
Cash on Hand	400	400
Stock On Hand	966	2,123
Prepayments	11,865	9,352
	993,514	673,420
Less Current Liabilities		
Creditors and Accruals	77,280	90,367
Sundry Creditors & Accruals	357,776	283,396
	435,056	373,763
	558,458	299,657
Add Fixed Assets		
Equipment & Fittings	703,402	522,967
Less Provision for Depreciation	(420,389)	(238,810)
	283,013	284,157
	841,471	583,814
Represented By		
Membership Equity 1 July 1996	579,558	309,325
Equipment Reserve	3,578	4,256
	583,136	313,581
Add / (Less) Surplus to date	258,335	270,233
	841,471	583,814

Auditor's Report to the Members of Melbourne PC User Group Incorporated

I advise that I have audited the financial statements, including the Balance Sheet, Income & Expenditure Statement and Notes to the Accounts, of the Melbourne PC User Group Incorporated ("the Group") for the year ended 30 June, 1997 in accordance with Australian Auditing Standards.

The audit has been conducted in accordance with Rule 37 of the Group's rules. I have not been requested to audit, or express an opinion on, any matters not contained within that Rule, and accordingly no such opinion is expressed herein.

I have obtained all the information and explanations requested.

In my opinion:

- the Balance Sheet, Income & Expenditure Statement and Notes to the Accounts are properly drawn up:
 - to exhibit a true and fair view of the financial position of the Group as at 30 June, 1997, and
 - in accordance with the books of account of the Group, and
- the rules of the Group relating to the administration of funds have been properly observed.

Dated this 27th day of August, 1997.

Peter G Salter, FCA
Registered Company Auditor

Notes to the Accounts for the year ended 30 June 1997

1. Statement of Accounting Policies

The accounts have been prepared and presented in accordance with Accounting Concepts and applicable Accounting Standards, which have been consistently applied. They have been prepared using historical cost convention and do not take into account changing money values or, except where stated, current valuations of non-current assets.

2. Stock and Purchases

Stock is valued at the lower of cost and net realisable value, and costs are assigned on a first-in first-out basis.

3. Fixed Assets

Fixed assets are brought into account at cost less accumulated depreciation.

4. Depreciation

Depreciation on assets is calculated on a straight line basis over the useful life of the asset commencing from the time the asset is first available for use.

5. Prepaid Subscriptions

All subscriptions for membership and Internet relating to the period after 30 June 1997 are included in the accounts as current liabilities, and will be allocated to the periods which they cover.

6. Commitments and Contingencies

a) Relocation

The Group has secured a 5-year lease commencing 14 July 1997 of premises at 27 Dorcas Street South Melbourne.

The costs of relocation will be up to \$250,000 including removal, legal and fitout costs.

b) Operating Lease commitment

Future minimum operating lease payments	
Not later than one year	\$ 72,258
Later than one year but not later than two years	\$ 77,920
Later than two years but not later than five years	\$ 249,910
Later than five years	\$ 3,711

Total \$ 403,799

Learn to Repair and Upgrade Personal Computers

Including full theory of operation

- * \$179 for 4 x 3 hour evening classes
- * Maximum 10 students per class
- * Learn to solder and design cables
- * Lots of "hands-on" tuition
- * Certificates issued on completion of course
- * Free Ongoing Support
- * Includes over 350 pages of course notes
- * Course run by qualified technician with 18 years computer experience
- * Courses commence in first week of each month for four consecutive weeks

Vision Fix Software and Support Pty Ltd
Shop 19 Rosella Street, East Doncaster
Tel. 9841 7077 – 7 days until 9.00 pm

What does membership of Melb PC offer you?

BENEFITS OF BELONGING



Strength

Melbourne PC User Group Inc. has over 11,500 members and is the largest PC User Group in the world. It was founded in 1983, and is still run for its members, people like you.

The Group employs full-time office staff and some part-time help. Some services are provided by contractors, but the other functions of the club—magazine writing and editing, online services maintenance, collection and distribution of shareware, organisation of SIG and monthly meetings and more, is performed by volunteers.

The Group today proudly has a membership of people from all walks of life and with a broad range of computer skills. With this vast store of knowledge, members have access to information and help in numerous fields—programming, software solutions, DOS and Windows, communications, to name just a few.

Magazine

Melb PC's magazine, *PC Update*, is sent to members 11 times a year. *PC Update* publishes articles written by members and all members are welcome, indeed encouraged, to write articles on a subject they know about, to share with others. *PC Update* occasionally reprints articles from overseas user groups, to keep Melb PC members as up-to-date as possible.

PC Update has won awards every time it has entered the International User Groups' Newsletter Contest. Some of the many awards it has won are "Best Feature Articles", "Best Publication", "Best Features and Reviews", and "Best Columnist". It has also been runner-up in "Best Publication" and "Best Layout and Design". Many people join the Group just for the value *PC Update* provides, well worth the annual membership fee on its own, and then discover all the other benefits of membership.

A year's membership of Melb PC, which includes having *PC Update* delivered to you, costs about as much as it does to buy a year's issues over the counter.

Computer First-Aid and Dial Help

This unique service is made available free to members simply because volunteers within the Group give their time and knowledge to assist with any computing problems you may have. About 300 telephone numbers of unpaid volunteers, with day- and night-time contacts, are mailed to members with their *PC Update*. The service covers over 120 separate topics.

Training

The Group provides training in a diverse range of computer skills, from starting with computers to advanced programming.

Melb PC has its own fully-equipped training centre, using networked Pentium systems. Courses are run as a service to members, making them very cost-competitive when compared to similar courses elsewhere.

Students learn in a classroom environment with one computer per student. Courses include applications (such as Quicken, Excel and Word), BES and Internet usage, and operating systems such as DOS and Windows.

Most classes are run in the evenings or at weekends, when parking is readily available. The Club's rooms are also easily accessible by public transport.

All courses provide suitable training material and support and a list of courses on offer to members appears in each issue of *PC Update*.

Monthly Meeting

Each month, except January, Melb PC holds a meeting, open to members and visitors. The meeting is usually addressed by representatives from the computer industry on topics of general interest. Samples of software and other products are given away. These speakers include many from Australian vendors and distributors—we have also been privileged to be addressed by CEOs such as Bill Gates, Philippe Kahn, Gordon Eubanks and others who made special visits to address our members.

Also, there is the ability to address questions to the membership at large, seeking advice or problem-solving. Shareware and diskettes are sold and members socialise and discuss anything that takes their fancy—even computers!

Following the meeting many members gather for a meal, arranged at a convenient restaurant, at "user-friendly" prices.

Special Interest Groups (SIGs)

The Group has SIGs covering many aspects of computer use. A SIG can deal with any topic relating to personal computing, ranging from particular applications to hardware and programming, or how to get the best from your equipment.

There are also regional SIGs, for members in outlying geographical areas.

A list of meeting dates, places and contacts for SIGs is published each month in *PC Update*, with reports of past and future activities. All SIG meetings are available to any member.

Bulletin Board

Melb PC operates a free 23-hours-a-day bulletin board system (BBS) as another member service. The BBS, running on 34 lines, is the biggest OS/2-based BBS in the world.

The BBS has two main functions—electronic mail and message exchange, and file transfer facilities. The mail and messaging facilities enable members to exchange messages with each other and to seek help on a wide range of topics, not only from other members but also from the world-wide PC community. This service gives BBS users access to an enormous pool of experience and talent on a vast array of subjects. If you have a problem, put a message on the BBS and, more often than not, it's answered in a day or so!

The BBS carries many files on a range of topics. These have been uploaded by members who found them useful and can be downloaded by other members. They include many useful utilities and the latest versions of shareware software, often obtained from overseas BBSs before appearing in other Australian outlets.

Internet Service

The club provides access to a 127-line full-featured Internet service, providing access to Usenet, ftp, irc, www, gopher and telnet.

PAP accounts are provided. This popular service is being expanded and enhanced to serve a larger number of members.

Software Library

Melb PC maintains an extensive and up-to-date software library of programs (over 1300 disks, with about 50 new disks added each month) for IBM-type personal computers, obtained from around the world. This library of shareware software is available only to Melb PC members and is supplied on new disks at very low prices.

An order form for this software is in every issue of *PC Update*.

Shareware Registration

Much of the most popular software on Melb PC's Bulletin Board and in its software library is shareware, i.e. try free and pay only if you like and use it.

The club organises bulk shareware registrations, usually at a substantial discount.

Club-organised registrations also save members the costs of US-dollar bank drafts and overseas postage. □

MELB PC Membership Application/Renewal

Personal details

Membership number (if renewing)

Title Mr ☐ Mrs ☐ Miss ☐ Ms ☐ Dr ☐ Oth. Ref: PCU 1097

First name Middle initial

Last name

Postal address

Postcode

Country

Business phone ()

Home phone ()

Job title

Employer

I do ☐ / do not ☐ want to receive occasional promotional mail from commercial organisations.

I hereby apply for membership of Melbourne PC User Group Inc. and agree to abide by its rules while I am a member.

Signature

Date

Membership details

Type	New	Renewal	Amount
Individual (extra family members at \$10 each)	\$60 <input type="text"/>	\$50 <input type="text"/>	\$ <input type="text"/>
	\$10 <input type="text"/>	\$10 <input type="text"/>	\$ <input type="text"/>
Corporate (two representatives, extra representatives at \$60 each)	\$130 <input type="text"/>	\$120 <input type="text"/>	\$ <input type="text"/>
	\$60 <input type="text"/>	\$60 <input type="text"/>	\$ <input type="text"/>
Student or Pensioner (see notes)	\$50 <input type="text"/>	\$40 <input type="text"/>	\$ <input type="text"/>
	\$50 <input type="text"/>	\$40 <input type="text"/>	\$ <input type="text"/>

Notes:

- Students must attach a photocopy of student card or letter from educational institution confirming *full-time* student status.
- Pensioners must attach a photocopy of both sides of their Pension Concession Card.
- Please attach a list if more than one family or corporate member is being nominated with this application.
- Corporate members may change representatives by giving notice in writing to the secretary.

Total \$

How did you learn about Melb PC?
Please complete the appropriate details.

☐ PC Update ☐ Swap Meet ☐ Friend (please give name and number following)

Member No: Name:

☐ Other (give details)

For membership application or renewal, or training orders, please use the remittance and/or credit card form on the next page

Training order form

Course Title

Starting Date

Amount

/ /

/ /

/ /

Total:

Top choice shareware

These are some of the most popular volumes in the Melb PC Shareware/Freeware library. Refer to the regular catalogue updates in *PC Update* for up-to-date listings of other disks—use the lower part of this order form for your choice from those listings.

Shareware/PD Title	Melb No.	Format	Qty	Amount
Shareware Catalogue & New Member Disk	0000	3.5 / 5.25		
Graphics Workshop for DOS	8015	3.5		
Graphics Workshop for Windows 3.x	8064	3.5		
Graphics Workshop for Windows 95	8562	3.5		
Growit	8157	3.5		
List	1490	3.5 / 5.25		
McAfee VirusScan for DOS	8018	3.5		
McAfee VirusScan for Windows 3.x (4-disk set)	8893/96	3.5		
McAfee VirusScan for Windows 95 (2-disk set)	8664/65	3.5		
MS-DOS 6.22 Stepup from 6.0 (3-disk set)	8110-12	3.5		
PKZip/PKUnzip	1235	3.5 / 5.25		
Real Audio Player for Windows 3.x	8364	3.5		
Real Audio Player for Windows 95	8592	3.5		
Telix for DOS	8062	3.5		
Telix for Windows v1.00 (2-disk set)	8129/30	3.5		
Wolfenstein Fights Street Fighter II	8012	3.5		
Melb PC Internet kits (special prices)				
Windows 3.x @\$10 per set (3-disk set)	8711-13	3.5		
Windows 95 @\$20 per set (6-disk set)	8714-19	3.5		
		3.5 / 5.25		
		3.5 / 5.25		
		3.5 / 5.25		
		3.5 / 5.25		
		3.5 / 5.25		
		3.5 / 5.25		
Postage/Packing is included Costs: first disk (per order) \$5, second disk \$4, third and subsequent disks \$3 each				Total: <input type="text"/>
I am <input type="checkbox"/> under 15 years of age <input type="checkbox"/> under 18 years of age <input type="checkbox"/> over 18 years of age Signature: <input type="text"/>				

Buy your diskettes from Melb PC

Order details			
Brand/Size	Cost (Box of 10)	Number of boxes	Value
Memorex 5.25-inch HD (1.2 MB)	\$12.50	<input type="text"/>	<input type="text"/>
Memorex 3.5-inch HD (1.44 MB)	\$15.00	<input type="text"/>	<input type="text"/>
Generic preformatted 3.5-inch HD (1.44 MB)	\$5.00	<input type="text"/>	<input type="text"/>
Postage and packing \$5 per order:			\$5.00
Endose a cheque or use the credit card authority below			Total: \$ <input type="text"/>

Important: Please complete the following for both shareware and diskette orders.

Member details	
Name	<input type="text"/>
Membership number:	<input type="text"/>
Delivery details	
Delivery Address	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
State	<input type="text"/>
Postcode	<input type="text"/>

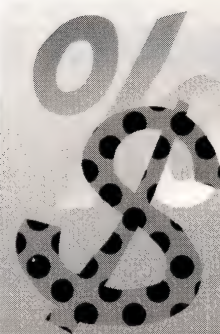
Payment Details/Credit Card Authority
Forward to Melb PC, PO Box 283, South Melbourne VIC 3205, Australia

I enclose a cheque made payable to Melbourne PC User Group Inc. for \$ <input type="text"/>		Date	<input type="text"/>
Please debit my:	Bankcard <input type="text"/>	Visa <input type="text"/>	MasterCard <input type="text"/>
	with \$ <input type="text"/>	Card expiry date	<input type="text"/>
Card number	<input type="text"/>	<input type="text"/>	<input type="text"/>
Business hours phone number (<input type="text"/>)		<input type="text"/>	<input type="text"/>
Card holder's name	<input type="text"/>	Signature	<input type="text"/>

Discounts for members

SAVE A DOLLAR

Discounts from members and advertisers



Computer service, parts, support, etc

Austral Data Processing Services

Forest Hill
Ph: 9894 0199
Fax: 9894 7688
20%—(not hardware) on consultancy, data backup/storage, maintenance, hardware.

Bright Business Services

North Carlton
Ph: 9388 9744
Fax: 9388 9755
15%—Re-manufactured laser printer cartridges and inkiets.

Calculator King

St Kilda Road
Ph: 9866 8753
Fax: 9820 9652
10%—all calculators (inc. scientific/financial and speciality). Personal Organisers: Sharp, Casio, HP, Psion.

Greensborough Computers

Greensborough
Ph: 9434 6166
Fax: 9434 6033
20%—(labour only) on repairs and upgrades for individual Melb PC Members.
5% on some models of new PC Systems (please enquire).

Metropolis Corporation Pty Ltd

Ferntree Gully
Ph: 9752 4242
Fax: 9752 3777
10%—computer systems (incl. free 24-hour software/technical support.) \$40 for up to two hours maintenance/support

Carl Miller Computer Software and Training

Oakleigh
Ph: 9222 4411 BH
9543 7619 AH
10%—registered copies of Brothers Keeper genealogy software. Local support, manuals & supply of updates. \$75 plus postage.

Maon-Ess Computers

Essendon
Ph: 9326 2776
Fax: 9326 2797
10%—service and repairs, new & secondhand parts & systems.

Mountain Visions Pty Ltd

Sunshine North
Ph/Fax: 9310 1063
10%—on labour only—customised software, hardware & software consulting, maintenance, on-site training.

PCLC Computers

Heathmont
Ph/Fax: 9870 3288
20%—labour on upgrades, 5% on some new systems.

Pollock Computer & Technical Services

Hampton
Ph/Fax: 9598 3186
20%—Personal PC tuition & problem solution.

Pratige Solutions

Notting Hill
Ph: 9558 9198
Fax: 9558 9197
15%—all fax/modems & ethernet products.

Summit Computers

Lilydale
Ph: 9739 6269
Fax: 9735 0503
20%—on labour (service, networks, etc), 6%—hardware & software.

Members' discounts

If you are a member or advertiser offering a discount on goods or services to Melb PC members, on production of their membership cards, please contact the office to register your offer, which will then be listed in future issues of PC Update.

Books, magazines, software, etc

Advanced Computer Products

St. Albans
Ph: 9364 1886
Fax: 9367 3639
20%—all computer books & software.

Capricorn Programming Services

Frankston
Ph: 9775 5377
Fax: 9774 5434
10%—on Scanlab Vol.1 Antivirus & virus education kit.

Collins Booksellers

(Technical and Academic Centre)
Melbourne
Ph: 9654 3144
10%—computer books.

Computer Book Company

Mt. Evelyn
Ph: 9737 0411
Fax: 9737 0433
20%—all computer books, mail order.

Cyber Pty Ltd

Hampton
Ph: 9521 0655
Fax: 9521 0729
10%—Vet antivirus software.

Dymocks, Shop 2

Melbourne
Ph: 9663 1344
Fax: 9663 1581
10%—computer books, no magazines.

Dymocks

Brighton
Ph: 9592 1911
Fax: 9592 1611
10%—computer books.

Dymocks

Westfield Shopping Town, Doncaster
Ph: 9848 7209
Fax: 9848 7307
10%—computer books.

Dymocks

Frankston
Ph: 9770 0300
Fax: 9770 0400
10%—computer books.

Dymocks

Fountain Gate
Ph: 9796 6459
Fax: 9796 6509
10%—computer books.

Dymocks

Pran Central, Prahran
Ph: 9510 2100
Fax: 9519 2520
10%—computer books.

Trevor Gibbs

Melton
Ph: 9743 8917
15%—books: *Windows Whys* and *Easy DOS It*, \$16.95 ea, \$32 for both. Incl diskettes.

ITS Information Technology

Systems
Greenvale
Ph/Fax: 9333 2197
20%—computer books, Educational Software.

Mace Booksellers and Stationers

Mount Waverley
Ph: 9807 1899
10%—computer books.

McGills Authorised

Newsagency
Melbourne
Ph: 9602 5566
10%—computer books.

Polyester Books

Fitzroy
Ph: 9419 5223
Fax: 9419 5451
10%—on all fiction, science, computer & non-fiction titles, magazines, comics & T-shirts.

RMIT Bookshop

Melbourne
Ph: 9663 5855
Fax: 9663 7528
10%—all books.

Technical Book and Magazine Company

Melbourne
Ph: 9663 3951
10%—computer books.

The Worsley Press

Hastings
FreeCall: 1800 622 805
Ph/Fax: (03) 5979 1112
E-mail: worsley@peg.apc.org
10%—& free postage.

Other services

Adept Accounting and Taxation

Mill Park
Ph: 9436 7604
10%—on all taxation return preparation & business accounting services.

Express Bookkeeping

Carnegie
Ph: 9563 4770
Fax: 9563 4477
10%—on all bookkeeping & financial management services.

Mediware Applications

Camberwell
Ph: 9889 9234
Fax: 9889 9236
5%—(purchase), 10% on training and installation of Dental, Medical (including MedClaims) & Allied Professional Patient Management & billing software.

Min Thong Lee

c/- AP Insurance Brokers
Queen St, Melbourne
Ph: 9602 1869
Fax: 9602 1876
5%—life insurance, loans, home & contents, motor, commercial.

Michaels Camera and Video

Melbourne
Ph: 9670 1333
Fax: 9670 0074
up to 10%—on digital cameras, scanners, Internet video conferencing, scanning bureau.

Mike McKean Music

Dingley Village
Ph: 9551 7363
5%—on our Octet or 10% on a 14 pce. Big Band & two vocalists. Discount off Musicians' Award rates. For Dinner dances, weddings, balls & special events.

Newtech R&D

Kilsyth
Ph/fax: 9723 7535
10%—on electronics consumer product design & Japanese translation.

Sit Right Chairs Pty Ltd

Coburg
Ph: 9354 2612
Fax: 9354 2795
10%—off range of office and ergonomic chairs.

Stewart Smith, Australian Commercial Credit Licenced Insurance Brokers

Ph: 9816 3264
Fax: 9816 3270
25%—off normal costs. Leasing Equipment & cars. Home/commercial mortgage loans.

Tortoise Head Guest House

French Island
Ph: (03) 5980 1234
Fax: (03) 5980 1222
10%—on accommodation, fully catered, adjacent bay.

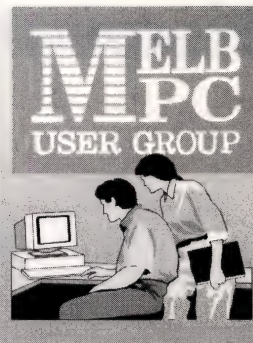
Quarter Deck B&B

San Remo
Ph: (03) 5678 5485
Mob: 018 550 235
E-mail: rosco@melbpc.org.au
20%—on B&B stays of two nights or more. Great views and close to many tourist attractions.

Ultimate Business Service Opportunities

Strathmore
Ph: 9483 4417
Fax: 9374 2919
25%—on travel cards that allow 50% off world-wide hotels. 12 month g'tee. □

Special interest group meetings



CLUB ACTIVITIES

Access (Database)

Ray Watson

(03) 9883 4382 AH
Fax: (03) 9576 9591
2nd Monday, 6.30 pm
Melb PC SIG Room

Assembly & Other Languages

Felix Hofmann

felix@melbpc.org.au
(03) 9523 5400 AH
1st Thursday, 7.00 pm
Melb PC SIG Room

Ballarat

Ken Smith

kensmith@giant.bnc.com.au
1st Thursday, 7.30 pm
(03) 5332 7851 BH & AH
(except school holidays)
Ballarat & Clarendon
College, Junior School
Campus
614 Mair St, Ballarat

Bendigo

Russell Collins

(03) 5439 3708
2nd Wednesday, 7.30 pm
Girton Grammar School
(Computer Room)
105 Mackenzie Street,
Bendigo
(Vine Street entrance)

C/C++ Programming

Ken Holmes

(03) 9583 1504 BH & AH
4th Monday, 7.00 pm
Melb PC SIG Room

Clarion

Alan King

(03) 9882 8044 BH
4th Wednesday, 6.30 pm
Suite 9,
96 Camberwell Road,
East Hawthorn
(Through wire gate and
up the stairs on the
south-east side of
Roseberry St)

Communications

Philip Lew

(03) 9822 2998 BH
(Brief calls please)
2nd Wednesday, 7.00 pm
Melb PC SIG Room

Daytime

Felix van Lier

Felixvl@melbpc.org.au
(03) 9525 3962 BH & AH
Deputy convener:
Brian Taylor
2nd Thursday, 10.00 am
Melb PC SIG Room

East

Keith Lane

keithln@melbpc.org.au
(03) 9762 6644 Anytime
(03) 9761 1414 Fax

Ian Paterson

(03) 9755 2238
2nd Tuesday, 7.30 pm
Gas and Fuel Theatre
200 Rooks Road, Vermont

East Workshop

Keith Beresford

keith@melbpc.org.au
(03) 9726 9145 AH
Aldo Pitre
aldop@melbpc.org.au
Sunday following the East
SIG meeting, 10.30 am
Gas and Fuel Theatre
200 Rooks Road, Vermont

Freeware and Shareware

Doug Westcott

dougw@melbpc.org.au
(03) 9898 2765 AH
Co-convener: Tony James
3rd Tuesday, 7.00 pm
Melb PC SIG Room

Graphics

Yahya Abdal-Aziz

(03) 9562 1023 AH
(brief calls please)
Asst convener:
Kevin Gorie
3rd Monday, 7.45 pm
We meet in the bungalow
at the rear of Nadish
Naoraji's home,
8 Park Crescent,
North Caulfield

Hardware

Felix Hofmann

felix@melbpc.org.au
(03) 9523 5400 AH
3rd Wednesday, 7.00 pm
Melb PC SIG Room

Music

Yahya Abdal-Aziz

(03) 9562 1023 AH
(brief calls please)
Asst convener: Eric Best
(03) 9376 1984 AH
2nd Thursday, 7.30 pm
Melb PC SIG Room

New Users, Central

Graham Paul

(03) 9417 5315 AH
3rd Monday, 7.00 pm
Melb PC SIG Room

New Users, East

Doug Brooke

(03) 9822 3458 BH & AH
2nd Tuesday, 7.30 pm
St Mark's Anglican
Church,
Cnr Canterbury & Burke
Rds, Camberwell

OS/2

John Angelico

talidad@melbpc.org.au
(03) 9544 8792
4th Tuesday, 6.30 pm
Melb PC SIG Room

Programming

Ross Hall

(03) 5428 6470 AH
(03) 9699 4000 BH or
Andrew Callaway
acal@ozemail.com.au
(03) 9619 4067 BH
2nd Tuesday, 7.30 pm
Melb PC SIG Room

Quicken

Viv Martin

martinv@melbpc.org.au
(03) 9583 5372 AH
4th Thursday, 7.00 pm
Melb PC SIG Room

Retired & Interested Persons

Ken Thomas

(03) 9884 5309 BH & AH
4th (not last) Friday,
10.00 am
Lutheran Church,
25 Cypress Avenue,
Glen Waverley

UNIX

Yahya Abdal-Aziz

(03) 9562 1023 AH
(brief calls please)
3rd Thursday, 7.30 pm
Melb PC SIG Room

Video Editing (Linear)

Albert Vanzet

Derek Hampson
(03) 9853 2482
4th Monday, 7.00 pm
45 Talbot Avenue,
Balwyn

Video Editing (Non-linear)

Kevin Gorie

(03) 9870 3965
2nd Monday, 7.00 pm
45 Talbot Avenue,
Balwyn

Waffle

Vince Thornton

018 171 344 or
Andrew Callaway
acal@ozemail.com.au
(03) 9619 4067 BH
"Eat-ins" after monthly
meeting.

Warragul

Gordon Ross

(03) 5623 5434 AH
1st Friday, 7.30 pm
Warragul Leisure Centre
Function Room

Western Suburbs

Robert Mead

meadr@netstra.com.au
(03) 9312 5427
4th Tuesday, 7.00 pm
Sunshine Squash Centre
(corner Kent and Stewart
Streets, Braybrook)

Windows

Mikhail Bortolotto

(03) 9888 2360 AH
1st Monday, 7.00 pm
Melb PC SIG Room

Word Processing/DTP

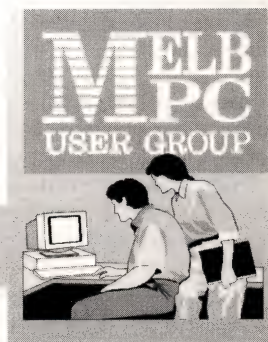
Loraine Briggs

lbriggs@melbpc.org.au
(03) 9563 6396 AH
014 693 882
4th Friday, 7.30 pm
Melb PC SIG Room

The Blind Citizens Support Group
meets at 7.45 pm on the 3rd Tuesday
of each month, at 1st Floor, 87 High
Street, Prahran. For further details,
please contact John Machin, on (03)
9569 1440 (BH).

SIG meeting reports

CLUB ACTIVITIES



Bendigo

Peter Ward

The September discussion session on scanners was well received, Joe Henry was able to provide a great deal of information on selection and use, as well as an insight into the software involved.

For October we are to have Peter Wiseman to talk about producing special effects for TV. Peter will build on his previous address on animation and multimedia.

Morris Tobias is confirmed for the November meeting. Morris has been asked to wear his commercial hat, and tell us of his many interesting products.

In December we'll have our Christmas breakup at the Foundry Arms Hotel. For future meetings, another genealogy session is planned as well as more farm software. There is a possibility of visits to Fortuna mapping complex and to the Bendigo Bank.

Daytime

Felix van Lier

July

Alan MacKenzie spoke to us about printing. The meeting took the form of a discussion of the difficulties printing DOS shareware manuals using dot matrix printers.

Problems: paper size, page breaks, and a printer's ability to print the first and last couple of lines on cut-sheet paper.

The ASCII form feed code (decimal 12) was explained and demonstrated. Members were encouraged to persist in their study of their printer's Esc+P commands.

Alan recommended Q-EDIT for use when printing shareware manuals and ASPRN for help learning (and using) Esc+P codes in DOS documents.

Notes were also supplied on International Standard Metric Paper Sizes, the ISO paper series and non-metric paper sizes.

August

Melb PC Vice President and Computer Rebuilds CEO, Morris Tobias, attracted a full house for his presentation on the latest advances in computer hardware. Morris spoke about the Hauppauge Win/TV card (reviewed by George Skarbek in *PC Update*, July 1997). With this card you can watch television programmes in a window on your monitor, and even save frames on disk.

Morris also demonstrated the Palm Pilot, USRobotics' pen-based organiser, which connects to a PC or Mac via a desktop cradle. It also includes e-mail management. A most useful and interesting product for keeping track of appointments,

phone numbers, etc, in a pocket-sized device that functions without a keyboard.

Many thanks Morris for a most interesting and stimulating presentation.

September

Leigh Hawke will speak about desktop publishing.

October

Doug Brooke will talk to us about the BBS, with a live demonstration and we will also have a look at some interesting shareware programs.

Visitors always welcome!

East

Margaret Brown

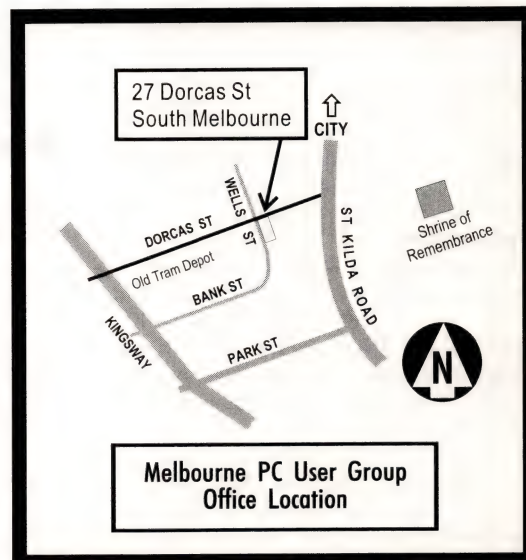
Virus Defence

Richard McMillan, from Second Sight, gave a powerful and at times sobering presentation about what he calls "the most disgusting area of the computer industry". His aim was to dispel many virus myths and explain why he believes programs that rely on scanning and regular updates must necessarily lag the development of viruses. He also discussed the importance of understanding the mentality and motives of virus writers, as these factors must be considered to fully understand the impact of the chaos they

Meetings Calendar

(Check with SIG Convener when a SIG meeting falls on a Public or School Holiday)

	Monday	Tuesday	Wednesday	Thursday	Friday
First	Windows ‡		Main Monthly Meeting Waffle	Assembly & Other Languages ‡ Ballarat	
Second	Access (Database) ‡ Video Editing (non-linear)	Programming ‡ East New Users, East	Bendigo Communications ‡	Music ‡ Daytime ‡	
Third	Graphics New Users, Central ‡	Committee ‡ Freeware and Shareware ‡	Hardware ‡	UNIX ‡	
Fourth	C/C++ Programming ‡ Video Editing (linear)	OS/2 ‡ Western Suburbs	Clarion	Quicken ‡	Word Processing/DTP ‡ Retired and Interested Persons



‡ Many SIGs meet at Melb PC's premises, our new premises are at 27 Dorcas Street, South Melbourne.

hope to create.

Second Sight's InVircible, differs from many mainstream anti-virus programs. It identifies the virus at the point of propagation and enables restoration of corrupted files before it can infect an entire hard drive or network.

During George Skarbek's question and answer session, the inherent difficulties in resolving problems using telephone support were discussed.

There was an enthusiastic response to the suggestion of visits to computer-related facilities (destinations at present unplanned), and for some purely social functions. The lively discussions that take place during the break and after the meeting suggest that these events should be successful.

Tips and tricks

Partitioning a hard drive is now an easy and effective way to organize space and adjust cluster size, but this normally renames the CD drive and can produce problems of its own. Keith had an answer to this and several other DOS and 3.11 issues.

Future meetings:

- Charles Wright
- Networking
- Web Pages
- BBS.

OS/2

AUGUST

IBM Channel Partner

Convener John Angelico welcomed about 15 OS/2 users, including newcomers, and Georgia Seeley, of Sealcorp Computer Products, to the meeting.

Georgia, who is responsible for IBM Software, outlined Sealcorp's background, and explained its aim to supply resellers (NB: not end users) with "end-to-end solutions" that are thoroughly certified to work together. Georgia is available to help end users find an appropriately skilled reseller able to meet their requirements, rather than to sell direct. She also noted a couple of useful suggestions, and was impressed by the keenness of SIG members to stay on top of the latest developments.

Open forum

The main news was IBM's release of public FixPacks for Warp 3 (no 31) and Warp 4 (no 3). Initial experience with them has been (i) excellent and (ii) not so good. We will get a full set onto the BBS for download and set up a procedure for running the fix from a hard disk directory rather than from floppies.

Despite these Fixpacks, there was general agreement that OS/2 was still an excellent product, and that we did not have to feel defensive about using it. There are still opportunities for users to find software for their platforms of

choice. Whilst earlier this year we felt as if IBM was leaving us behind in its rush towards corporate involvement, there was now a more stable independent developer community. Events such as "Warpstock" were show-casing quality software in all categories and the SIG is here to stay.

Visual Age for Java

With thanks to Nick McGuigan, we enjoyed a tantalising preview of Visual Age for Java (VAJ) which is scheduled for release in early September. We were amazed at the simplicity of the Visual Age integrated development environment. It took a mere five minutes to put together a simple Java applet with the available tools.

We plan to have full length tutorials of 60-90 minutes over the next few meetings, subject to availability of machines for hands-on practice (prerequisite: a working knowledge of Object Oriented programming concepts).

More Java information and a free download version of VAJ is available from IBM software sites (<http://www.ibm.software.com> and/or <http://ncc.bursley.ibm.com/javainfo/>) for example).

THE FUTURE

Tuesday 23 September: Java tutorial and planning for 1998, at 66 Albert Road unless otherwise advised

Tuesday 28 October: Java tutorial. Expected to be at the new premises, 6:30 pm start.

Planned (dates open)

- Java and other multi-platform applications, Corel OfficeSuite for Java
- Special for new users: Warp up and running with performance and tuning tips
- Shareware reviews: various (please report back on what you would like to learn about)
- Another session on OS/2 and related literature (McGills Computer Section). Come along and add your voice to the requests for topics.

Programming

Ross Hall

Among the topics discussed at the August meeting:

- The use of radio buttons in Delphi. How they are interfaced with the code. The ability for them to be placed in groups to accelerate interface design
- The creation of DLLs in Visual Basic 5. The advantages of dynamic linked libraries and traps for the unwary
- The interfacing of a Delphi 1.0 program to the OS/2 command line. How to write a Windows program that runs under OS/2 and is able to access network printer information. The simplest way seemed to be to generate a command to execute an OS/2

command line utility and capture the output. (This is a work in progress)

- The launching of the media player in Win 95 with command line options to control its operation. How to incorporate a batch file to automate the playing of video files
- Demonstration by Tobias Cohen of a Visual Basic program to draw polygons. He showed how to achieve a three-dimensional effect by offsetting shapes and using line segments.

The next meeting will be on 9 October at 7.30 pm. Everyone is welcome.

Retired & Interested Persons

Bill Cooney

Members attending the August meeting were saddened to hear that Eric Koop, one of our stalwarts, had died suddenly on 17 August. Eric was one of the original Melb PC Help Group and a founding member of this SIG. He continued as a vital part of this group and we remember him as a regular contributor to our news sheet, his willingness to help out and especially for his friendly and helpful personality.

Our Shareware guru, Leigh Hawke, warned members of an apparent lowering of standards in the cheaper lines of floppy disks now coming on to the market and through swap meets. Several of the disks of programs have been below par and have been replaced by him. If you know of a good reliable brand then stick with that, is the advice he gave us.

Catch 22 in the computing world

At question time quite a few people remarked on difficulties they had encountered when uninstalling and re-installing Win 95. Some had been caught no longer having the CD-ROM drivers present after having uninstalled Win 95!

The guest speaker at the meeting, Ian Bock, presented a very clever and entertaining melding of art, photography, sound and computer imaging techniques. Ian is also the president of the Melbourne Camera Club and names photography as his first interest. His presentation certainly gave evidence of a fine creative and artistic ability, in the pictures he projected during his display, and in his choice of sound and music to accompany the presentation. The slides were of computer screens created using a program called "Fractint 19.5" (which is available from the Melb PC shareware library). The screens were then photographed at slow speed with a single-lens reflex camera.

Beautifully captured images Ian, and expertly displayed.

Video Editing—Linear

Kevin Gorie

Derek Hampston opened the July meeting in Albert Vanzet's absence. It was pleasing to see two first-time attendees amid the 22 present.

Derek had made available a list of local movie/video clubs for those interested as well as a number of video magazines to enable those attending to gauge the publication's potential usefulness. The need for a program of activities was flagged and everyone is asked to give further thought to such a program.

Derek then handed the meeting to Gavan Orford who had the pleasant task of introducing the evening's speaker.

Ted Snell, a Communications Engineer with extensive experience in TV broadcasting, spoke on "An Introduction to Video Editing". His talk and illustrated notes gave those attending an understanding of how the TV builds a picture on the screen and how a video recorder records and plays video tape. Tom's efforts to make us better editors by improving our understanding of the physical attributes of the medium brought forth a torrent of questions! So many questions that Ted did not complete his presentation, and will be returning in the future.

The applause indicated that all enjoyed the evening, thank you Ted. Also, thanks to Carley Jobson for doing the tea and coffee.

At our August meeting Gavan Orford illustrated "Why I need computer assisted editing" by showing how he edits from camcorder direct to VCR.

Video Editing—Non Linear

Lawrie Weston

The August meeting didn't go as planned because our main speaker had the flu. We patched together a meeting of sorts when we were able to view (finally) computer output on a TV using an "Averkey" box. In stark contrast to our experience with the encoder box tried at the July meeting, we were able to get the Averkey box to work.

Some of our beginners are a bit worried about starting up and using the editing programs, so I demonstrated how easy it can be if you approach the project using movie-film techniques. Most agreed that way is a slow compared to using the features provided by the editing programs, however the object of the exercise was to show that it doesn't take much to put your toe into the water.

Kevin showed us a selection of clips including 3D animations, animated logos and a slide-show of still images set to music.

Don Watson-Brown then gave us a demonstration of the Averkey and a short introduction to new features in Media Studio Pro v 5. He also provided

pamphlets on the product.

Most of us have computer systems that are so "wired up" that it is un-reasonable to bring them to the meetings. I brought along a DX4-100 to show a short MPEG clip and it just wasn't up to the job. For now, members will be asked to bring their video samples on standard VHS tapes. We'll have to rely on visiting demonstrators to bring equipment that is able to do the job when they come.

The September meeting will probably be over by the time you read this report and we will have seen our first glimpse of Firewire technology and the latest Quadrant cards, thanks to Brad and Nive of New Magic.

For October we expect Brad Watts of Matrox demonstrating the Rainbow Runner add-on to the Mistique card. Although un-confirmed at the time of writing, we also hope to have Stuart Cargin, a Media Studio Pro Trainer, to show us a few tricks and a comparison of v 2.5 and v 5.

November's topic is "sound" and in December, we are looking forward to a combined meeting with the Linear SIG when we will have a look at the Casablanca non-linear editing system. □

SIGs at Melb PC

Currently we expect to move to our new office and SIG rooms on the first weekend in October (4th and 5th)

If you plan to attend a SIG at the Melb PC SIG room, either just before, or just after that date, please check with the convener to find out which building to attend.

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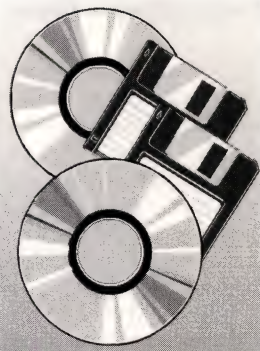
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Shareware/Freeware library update

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Glenn Webster



Updates

Melb 0365

ESIE v2.0

This Expert System Inference Engine (ESIE) is an artificial intelligence shell with which you can build a custom knowledge base, or expert system, to help you to make decisions. For the advanced student, ESIE can handle the normal gamut of expert systems building. ESIE loads in a knowledge base, and builds inferences out of the rules contained therein, to act like an Advisor. ESIE is easy to use and to learn and it is an excellent tool for the newcomer in AI. Manuals included with ESIE give you an idea of what AI is all about, and guide you through the process of building your own knowledge base. Several knowledge bases have been provided as examples of ESIE's capabilities. This version uses better and faster algorithms. More error detection is done on the knowledge base before run time. Up to 400 different variables and values can be specified in the knowledge base and in user responses. You can specify up to 1000 IF rules and up to 300 questions. ESIE requires DOS 2.0 or later, a word processor capable of producing flat ASCII files and 256 KB of RAM. Registration contributions of US\$145 or more provides the latest version of the program, bound manuals, a word processor and technical support.

Melb 1015 Cambridge Thoroughbred Handicapper v4.4

A handicapping system does two things: It attempts to predict a horse's (or a dog's) performance in an upcoming race by analyzing past performances in a consistent, scientific manner and it provides you with a strategy for betting on races given the outcome of your handicapping analysis. The Cambridge Thoroughbred Handicapper is a powerful, sophisticated tool that will enable you to handicap thoroughbred races quickly and easily. It's not a magic, get-rich-quick scheme, but if you follow the instructions, impose some discipline and use the handicapper wisely, you may be able to improve your performance at the track and make money in the process. Documentation is provided on disk. This version contains new features such as full-race handicapping, point-and-shoot updating, speed rating, track variant, gender bias and calculation of opening odds. It will run on any PC with 384 KB of memory. It may be run from a floppy disk. The registration fee of US\$30 will provide you with an enhanced version with many additional features.

Melb 2429 Block Breaker v4.20AE

Block Breaker is a Windows-based, ping-pong style game where you must knock the blocks out of the way to advance to the next level. It contains fifteen different types of Block Breaker games to choose from, each with an endless numbers of levels. It includes support for MIDI music and .WAV sound files,

and a toolbar for speed, level, pause and sound functions. This version includes corrections to some of the games and .WAV file assignment, as well as changes to the installation process. It requires Win 3.1x but it will work with Win 95. Freeware.

Melb 2478

On This Day v2.11 (for DOS and Windows)

On This Day is a program and collection of databases to answer the question "What Happened On This Day In History?" The databases contain thousands of birthdays, events, religious holidays, etc. Use the databases to add that little extra to your next speech or presentation, to discover what famous people were also born on your birthday or perhaps you're just interested in history, or trivia, or both? The databases are ordinary text files and the format is completely documented, so you can make changes and additions using your favorite text editor or word processor. On This Day will search an extra, personal file so all of your personal events do not need to be mixed with the data in the provided files. The program supports dates in the Gregorian, Hebrew, Islamic, and Julian calendars and calculates a limited number of astronomical events. This version contains updates to the databases and is OS/2 compliant. The Windows version requires an 80386 or later processor and Win 3.1 or better. The DOS version requires an 8088/8086 or later processor and DOS 2.1 or later. Regn US\$30 for each version.

Melb 2550

PC-CONFIG v8.45

PC-CONFIG is a shareware System Information and Benchmark program for DOS that works with Win 3.x and Win 95. It detects all of the hardware in your PC and shows it on the screen. It can show ISA, EISA, MCA, VESA Local Bus and PCI mainboards, identify processor caches (and their size), CPUs, VGA chipsets and a variety of hard disk cache software. PC-CONFIG tests for hardware shadow-RAM for main and VGA BIOS, identifies SCSI HD-controllers and their manufacturers, shows the physical parameters of ESDI hard disks and establishes the rotational speed of hard disks. It finds areas of memory of different speeds in the first megabyte and in extended memory. This update detects memory over 64 MB and VGA memory over 4 MB, shows details on more chipsets, detects more VGA chips and more PCI vendors. The registered version can identify the frame speed for VGA cards and speeds up Cyrix, TI and IBM CPUs by 5-10%, by activating the NegateLock pin. PC-CONFIG will work with DOS, Win 3.1 and Win 95. It requires an 80286 or later processor and DOS 3 or later. Regn is US\$15 (student), US\$20 (standard) and US\$70 (commercial).

Melb 2553

PowerStrip v3.0

PowerStrip is a versatile program, which provides a compact, floating toolbar with a Clock, Date and Resource Monitor. With a right mouse click, you can bring up a Calendar, a Phone List and Dialer,

a File Finder and Launcher, a ToDo List, a CD Player, a Calculator and a Disk Info Centre, all of which are hidden until you need them, and disappear when you don't. You can drag and drop the tool bar to any location on your desktop, then save that location, and it will be there each time you run it. PowerStrip requires Win 3.1 or later and a mouse. A registration fee of US\$29 provides the PowerStrip program, and ten additional utilities, while US\$39 provides all this and a CD-ROM of games and screen savers.

Melb 2590

YEAR 2000 v2.16

A serious limitation was designed into the PC in 1984 (and into many applications since) and remains a problem today. Most computer systems will not gracefully enter the next century, only a few years away. The system date will probably be incorrect, without assistance, on 2000-01-01 or later because of a hardware design flaw. Similarly, many software applications will misbehave as the year 2000 is approached and passed, even if the system date is correct. Some new machines are being produced with a BIOS that claims to cure the CMOS Real Time Clock century problem. While these new BIOSs will become the norm eventually, none of them solve the entire problem. They make no attempt to correct the CMOS RTC century byte in real time (they only correct it at boot) and some simply misreport the hardware date and make no effort to correct it. Virtually 100% of the PCs in use today will fail to advance the date to the year 2000 under any circumstance. This YEAR 2000 program will help those machines that are still in service then. It will test and fix the year 1999 to 2000 date change flaw of the CMOS Real Time Clock in AT-class PCs and PS/2s, from 286s through to Pentiums and their clones. It will work in DOS, OS/2 and Windows. Documentation is supplied on the disk. This update corrects comments about AWARD BIOS chips and adds information about AMI BIOS chips. YEAR2000 is free for personal, non-business use.

Melb 8026

McAfee Virus Scan for OS/2 v3.0.3

This disk contains the McAfee anti-virus detection and disinfection program (OS2SCAN). The programs on the disk have been provided in an uncompressed form so that the disk can be used, as supplied, to check your hard disk, prior to installation. Remember to write-protect this floppy disk before use. The scanning program has been designed to check for preexisting infections of known and unknown viruses on floppy, hard, CD-ROM and compressed disks on both stand-alone and networked PCs, and network file servers. Since OS/2 operates in a protected mode environment OS2SCAN can only check its own area of memory or "memory image" for viruses. There is no constant TSR-type protection available in OS/2. The DOS/Win version of VShield is included with OS2SCAN but it is only active while the system is running a DOS or Windows

session. Documentation is supplied on disk. VirusScan provides fast scanning performance and exceptional virus detection rates with its new engine. It offers maximum defense against the newest threats to data. This version includes new command line options for cleaning floppy disk boot sectors, removal of macro viruses in Word and Excel, detects 174 new viruses and removes 154 new viruses. VirusScan for OS/2 requires OS/2 2.1 or later and at least 8 MB of RAM. Regn US\$65.

Melb 8243 F-PROT v2.27A (July 1997)

The F-PROT anti-virus package contains a virus scanner combined with a disinfection program, as well as a resident monitoring program for intercepting known viruses. It uses virus search strings to intercept known viruses. It first performs a self-test, loads the search strings into memory, then (optionally) searches for viruses in memory. The main functions of F-PROT are available from a menu. F-PROT will scan .DO? (typically .DOC and .DOT) files by default. This disk contains the programs in an uncompressed form so that it can be used, as supplied, to check your hard disk, prior to installation. Remember to write-protect this floppy disk before use. F-PROT may be run from a diskette, if required. Documentation on the disk provides detailed descriptions of some of the functions of the programs, and general information about viruses. This version primarily includes an improved F-MACROW program, provides detection and disinfection of over 600 macro viruses, corrects some false alarms, removes 54 new viruses and detects (but cannot remove) another 30 new viruses. F-PROT is free of charge for private users, but others are required to register or obtain the 'Professional' version.

Melb 8455

DeltaCad is a powerful CAD (Computer Aided Design) program designed to meet all of your CAD needs. It can produce accurately scaled architectural or mechanical drawings, or just pretty pictures to paste into your favorite word processor. But DeltaCad is more than just a paint program, because you can edit, scale, move, rotate and copy individual objects, not just paint pixels. You can zoom in to draw fine details or zoom out to see the whole drawing. DeltaCad includes a simplified user interface to make it easy to learn and use, and it contains on-screen instructions to guide you with a context-sensitive help system. New features have been added to this version. Registered users receive a copy of the latest version of the program and a printed manual. The printed manual contains the same text as the DeltaCad on-line help system, but it also contains a tutorial to help you to learn DeltaCad, and many pictures and figures for clarification. DeltaCad is a true 32-bit program compatible with Win 95 and Win NT. It requires an 80386 or faster processor, Win 95/NT, 4 MB of RAM, 1.4 MB of hard disk space and a mouse. Regn US\$50.

Melb 8576 File Manager StepUp v3.28

File Manager StepUp is an add-on for Win 3.1 and Windows for Workgroups 3.11. FM StepUp improves File Manager dramatically. It does not replace File Manager, it simply adds extra commands to the menus of the File Manager, and enhances existing commands. It has a customizable Quick Menu, instantly accessible with the right mouse button, that contains the most frequently used commands and keeps track of the execution history of other commands. The

DeltaCad v2.4

customizable Execute Menu provides an easy way to access frequently used applications and perform preprogrammed operations on currently selected files. Other commands make it easy to create, view, edit and print arbitrary files, even files not necessarily associated with an application. Complete context-sensitive help is available from all dialog boxes. The Help file provides a complete user's guide for FM StepUp. FM StepUp is highly customizable. It also works with Win 95, but some features may not be available under Win 95. This version includes enhancements to the Quick Menu so that its behavior is consistent with the Win 95 user interface, and some bug fixes. It requires Win 3.1x or later. Regn US\$30.

Melb 8644

Web-It! v1.70

Web-It! is an HTML editor used to create homepages for the World Wide Web. It is not your run of the mill editor as it has almost every feature you would need included within it. The program features tools for creating homepages such as frames, forms, tables, lists, text formats, horizontal rule bars, inline images as well as a built in homepage viewer. Web-It! is very flexible and easy to use. Frames and forms are fully functional in the Professional Edition but the standard version shows you how they are prepared. This update includes extra features, such as speed buttons for generating HTML codes for fonts, and for inserting COMMENT and DIV tags, a font size button and a number of bug fixes. Web-It! requires an 80386 or faster processor, Win 3.1 or later, 4 MB of RAM and 1 MB of hard disk space. Regn US\$50 (Standard version) and US\$99 (Professional version).

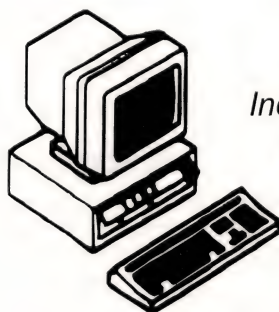
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Melb 8647**WebPen HTML and
WWW Editor v2.80****Melb 8751****WebPen PRO HTML and
WWW Editor v3.40**

WebPen and WebPen PRO are easy-to-use authoring tools that simplify the creation of web home pages. The programs contains special functions for tables, mail-to forms, frames, coloured bullets, e-mail, copyright notices, author's signature, background options, off-line viewing and an OLE-link to MS-Word's spelling checker. The PRO edition includes WinCopy screen capture, GifWeb transparent GIF backgrounds, Hotspots and Imagemap Tools. WebPen now includes features that were previously available only in the PRO version, while the PRO version has been enhanced with new filters and interlaced GIFs. Both versions require an 80286 or faster processor with Win 3.1x or later and 1 MB of hard disk space. Regn is US\$19 for WebPen and US\$39 for WebPen PRO.

Melb 8770**GeoBoy v1.4**

GeoBoy is a Microsoft Win 95/NT utility which traces an Internet route, generating host locations, and then plots these locations onto a map of the Earth (Mercator projection). You can manipulate the map by zooming and/or rotating it. Traces may be loaded or saved. It is useful for finding out all of the servers that you go through to get to a particular site. This update contains some minor enhancements and corrections. GeoBoy requires an 80386 or faster processor, Win 95 or Windows NT 4.0, 4 MB of RAM and a connection to the Internet (via a modem or ISDN line).

New disks**Melb 2610****ECOFAX v2.00**

ECOfax is a DOS fax program that has been specifically developed for users of speech synthesisers and/or Braille displays. It features an easy-to-use user interface and a batch-mode for use in batch files. ECOfax supports serial ports COM1 through COM4, pulse and tone dialing, variable page length and variable left margin. You can include both a graphic logo at the top of a fax document, and a signature at the bottom of its last page. A small utility has been provided to convert mono BMP, PCX or TIFF graphic files for inclusion in your faxes at 200x200 or 100x200 dpi. Fax numbers are stored in FaxBooks, which are normal ASCII files. These can be modified in your favourite editor or you can use ECOfax for this task. The SpeedSearch function of ECOfax shows matching entries as you type the characters of the wanted entry. ECOfax documents each step of the transmission process, and lets you redial a number if something goes wrong. All events, including failures, are logged. Regn is SFr65 (about US\$45) per copy but quantity discounts are available.

Melb 2611**WaveSongv2.4**

WaveSong is a nature-sound generator program for Windows. It uses the digital sound channel capabilities of your sound card and clever processing techniques to produce sounds of nature. The sounds played include thunder, crickets, waves and rain. This program could be used to mask out unwanted environmental noise and promote relaxation and concentration. Controls for Volume and Tempo enable you to tailor the sound output for individual preferences. A built-in timer can start or stop sounds at various times. Sound may also be started or stopped when your screen saver activates. WaveSong requires Win 95/NT and a sound card. Regn \$US15.

Melb 2612 Instant Drive Access v1.44

Instant Drive Access puts an icon in the Win 95/NT 4.0 traybar, from which you can access your disk-drives without having to open My Computer or Windows Explorer. Features include access to disk drives from the tray-bar, showing free space for each drive, showing total free space for all drives, monitoring free space for drives, and many more customisable features to increase the usability of the program. It requires Win 95 or Win NT 4.0 or later. Regn US\$15.

Melb 8945**MoodRing v1.1**

MoodRing is a Win 95 program designed to emulate the original 1970s mood rings. Even though the original mood ring depended upon the body temperature interacting with crystals to change the colour of the ring, this electronic version uses the amount of input from the mouse and the keyboard to determine what sort of mood you are currently in. The colours change from Black to Brown, Green, Turquoise and Blue. The colour changes that occur will be somewhat slow, so if you are not inputting anything the ring will "cool down" and after several minutes will eventually drop back to black. MoodRing requires Win 95 or later, a keyboard, a mouse and a VGA or better video card and monitor. Freeware.

Melb 8946**Zip Wizard Pro (Win 3.1X) v2.0****Melb 8947****Zip Wizard Pro (Win 95/NT) v2.0**

Zip Wizard Pro is a file compression program for Windows. Its dual mode of operation makes it suitable for both novices and advanced users. Zip Wizard Pro consists of the Zip Wizard and the Zip Pro Navigator. The Zip Wizard assists you in adding and extracting files from your zip files while the Zip Pro Navigator provides expert users with drag & drop zip management tools. Zip Wizard Pro includes many other features such as, Zip and UnZip Wizards, Zip List (a special folder that shows you all of your zip files no matter where they are), Win95 style dialogs and built in Zip/UnZip with support for disk splitting and encryption. When you use the right mouse button to click an object (or to drag an object) a context menu will popup to show you the operations that can be performed. This highly customisable program includes online help and a tutorial to assist you in working with zip files. Zip Wizard Pro requires Win 3.1x or Win 95/NT and 700 KB of hard disk space. Regn CDN\$40.

Melb 8948**I-search v1.0 (16-bit)**

Now you can have powerful and comprehensive search capabilities for your Windows PC with Wizzard Software's I-search. You can find, and retrieve, documents containing keywords, phrases and the information you need, in letters, memos, e-mail, presentations and spreadsheets on your own PC. I-search will also go out to the Internet and search through all the web pages that you have bookmarked, in addition to documents and files on your PC. You do not have to run through all your bookmarks trying to remember where you saw that important information. I-search will look through all of your bookmarked web pages as well as all of the cached web sites that you recently visited. This 16-bit version will expire after 30 uses. It will run on Win 3.x, Win 95 and Win NT. I-search requires 4 MB of RAM and 1 MB of hard disk space. Bookmark searching also requires a modem, a direct Internet connection and a browser (or a HTML viewer). Regn US\$25.

Melb 8949**So You Want to Make a
Web Page! v2.02**

This is an easy to use Web Page Authoring Tutorial written especially for Newbies. It will guide you gently through all the basics of HTML and Web Page design. There are links to the Internet for updated versions of the Web Pages. You can also email the author to ask questions. It requires an Internet browser under Win 3.1x/95 or later, and a direct connection to the Internet for live updates. Freeware.

Melb 8950-8951**Speed Surfer V3.2 (2-disk set)**

Speed Surfer goes to work when your web browser isn't. While you are perusing the information contained in a web page, the software will be downloading the links from the current page into your computer. Then when you click on those links, the page will come up almost immediately, thereby dramatically improving the speed of your overall web surfing experience. All data from links you do not follow is immediately thrown out, so there is no disk or memory space wasted. It requires Win 5/NT 4.0 or later, and an Internet browser such as Netscape Navigator or Internet Explorer to use the program.

Melb 8952**WEBZIP v1.10**

WebZIP is used to quickly download and save entire websites, or just the parts you need. Websites are automatically downloaded and stored within a single compressed Zip file, which can later be viewed offline with your preferred browser, or WebZIP's built-in browser. You can then send zipped websites to a colleague via email, move them to another computer, or take them on the road with you, wherever fast access to Web information is required. WebZIP requires an 80486 or faster processor, Win 95/NT, Internet Explorer 3.0+, 16 MB of RAM and 2 MB of hard disk space. Regn \$US40.

Melb 8953**Resource Scheduler****Multi-user V3.0d (win 3.x)****Melb 8954****Resource Scheduler****Multi-user V3.0d (win 95)****Melb 8955****Resource Scheduler****Single-user V3.0d (win 3.x)****Melb 8956****Resource Scheduler****Single-user v3.0D (Win 95)**

ResSched Multi-user is a powerful scheduling tool for organizations that have many people responsible for the scheduling of shared and exclusive rooms, equipment, specialists, and other resources. Although the program is quite sophisticated it is still easy to use. Some of its many features include group scheduling of resources, many options for repeat scheduling, flexible conflict checking, fast scanning of bookings and available time slots, drop lists for routine booking information and much more. ResSched reduces the time and effort of scheduling and helps to improve resource utilization. If your needs are less demanding the single-user versions of ResSched may be worth a try. These have similar facilities to the multi-user versions but they are not capable of network use. The Win 3.1x versions require an 80386 processor and 1.5 MB of hard disk space. The Win 95 versions require an 80486. Multi-user regn starts at US\$180 (depending on the number of users). Single-user regn is US\$49.

Melb 8957**CD Worx for Windows 95 v2.10**

CD Worx is a multi-threaded Win 95 application which can read CD digital audio tracks and save them as wave files without any quality loss (digital copying). It works on every CD-ROM drive if the drive and its device driver support MSCDEX raw reading. A built-in jitter correction (synchronization) can be used to eliminate intermittent ticks (pops and breaks) in the resulting sound file, so you always get an absolutely accurate reproduction of the CD. It enables you to view any sector of any CD (audio or CD-ROM) in a hex-editor-like view window. It has many other useful features. Comprehensive technical documentation on the CD-ROM programming interface is in the online help file. Requires Win 95/NT 4.0.

Melb 8958**Addraman Address Manager and Phone Dialer v1.02**

Addraman is an address manager/phone dialer for Windows. You can use it to store names, addresses and telephone numbers of your friends, relatives, business contacts, etc. You can have multiple address books and enter comprehensive notes for each item in them. The program has a flexible search facility. Locating addresses within your address book is simplicity itself and at the click of a button or a few keystrokes, the program will use your MODEM to dial the telephone number for you. You can also print out all of the details held in your address books for any range of addresses. The printed list is easy to read and can be used as your own personal phone book. Addraman requires an 80486-66 processor with 4 MB of RAM and Win 3.1x or later. Regn US\$25.

Melb 8959-8960**FreeTheme v1.0 (2-disk Set)**

FreeTheme is a theme loader for Win 95. You can load themes without the Plus! package. Various themes may be found in our Shareware library, or on the Internet at special sites. If you want to restore the default configuration, a "Win 95 standard" theme is supplied. It requires Win 95, 4 MB of RAM, a VGA or better graphics card and monitor and Win 95 themes (available separately). Freeware.

Melb 8961 Laserup! Simple Calendar v2.06 (Win 95)

LaserUp! Simple Calendar was written as a Win95 replacement for the calendar program that used to be included in Win 3.1. It includes a number of enhancements which make it considerably more useful than the Win 3.x program. You can print an entire month or week at a time rather than just the current date, enter any character as a "mark" or code to appear on the date buttons, have an almost unlimited size of notes attached to each date. You can log business expenses and transactions by date (including hours, mileage, income and expenses) and search for marked dates and/or text. The fonts used on the Month/Year buttons, Date buttons and for printing can be chosen from any fonts already installed on your system. LaserUp! Simple Calendar requires Win 95. Regn US\$15.

Melb 8962 WinNC32 v1.3 (Win 95/NT)

WinNC32 is a 32-bit File Manager for Win 95/NT. It is similar in style of operation to the commercial Norton Commander and Windows Commander. It displays two panels and you can copy, move and edit files between them. You can also connect to network resources. WinNC32 can compress files to archives and decompress them again. Compression standards supported include Zip, Winzip, Ari, Lha, Mscompress, Zoo, Pak and Rar. Freeware.

Melb 8963**ZTree for Win 95 v1.20**

ZTreeWin is a text-mode file and directory manager for Win 95 and NT. It has been developed as a native Win32 alternative to the DOS program XTreeGold, since its makers have ceased any further development. ZTreeWin should provide all the functionality that you are so accustomed to, while avoiding all the DOS-imposed limitations. It uses around 400 KB of memory, and will allocate and free blocks dynamically as required. The default video mode is 25x80, but you can select 43, 50 or 60 lines by 80 columns if desired. ZTreeWin uses Win32 APIs to avoid several of XTreeGold's limitations: it doesn't hog the CPU while waiting for keyboard activity, trying to log an in-use device will be dealt with gracefully, directory grafting works, long file names are supported, and you can copy and search open files. The program provides flexible support for many archiving programs. The single user registration of US\$30 provides unlimited use (including future versions).

Melb 8964 FileBack PC v3.0 (Win 95)

FileBack PC is a Win 95 utility that can automatically backup nominated files on your PC. The program is very easy to set up and to use. Files can be backed up while you continue working on something else. Its many features and options mean that you have no excuses for forgetting to backup your important files. Files can be grouped into backup sets if desired. Backups can be set to occur on a timed basis or when a particular event occurs. The program provides six revision numbering methods for backup files, a file restoration and cleanup process and event logging. You can have only two entries in the file backup list in this trial version. The standalone version of FileBack PC will enable any non-network drive to be used as a FileBack source or destination, while the network-enabled version adds the ability to access network drives and supports automatic network drive mapping. The standalone version should meet all of your needs for a home environment. FileBack requires Win 95. Regn US\$20 (standalone) or US\$30 (network). Site licensing and deep quantity discounts are available.

Melb 8965**SmartBoard 32 Clipboard Extender v1.22 (32-bit)**

SmartBoard32 is a "Clipboard Extender" for Win 95/NT which supports all clipboard formats. The normal Windows Clipboard can only retain a single item at a time—as soon as you copy a second item on to the Clipboard you lose the first one. With SmartBoard running that is no longer true, since it retains multiple "Clip Items", even across a Windows restart, and enables simple pasting back of any of them into any application. You can configure what clipboard formats to capture, from what programs, limit captures to items under a specific size and specify preferred formats from particular programs. SmartBoard runs as an invisible task in Windows (there is no icon cluttering up your desktop) but a single mouse-click or hot-key press pops up SmartBoard on top of your current application enabling you to select the "Clip Item" you want to paste, and then disappears out of the way again having pasted it into the current application automatically—usually you don't even need to use the application's paste command. SmartBoard requires an 80386 or faster processor with Win 95/NT and 1 MB of hard disk space. Regn US\$25.

Melb 8966-8967 Document Database v1.0 (Win 3.x/95) (2 Disk Set)

Document Database is an easy-to-use Word Processor integrated with a powerful database. You

can give your documents two long names (of up to 255 characters) plus a description of up to 32,000 characters. Documents are instantly located by simply typing the first few characters of one of these names, or you can search for text contained anywhere in the names, descriptions, or documents. This means that you could display all of the letters that you wrote to a person or a company. Try that with other word processors! You can also assign categories to your letters and documents to keep them neatly organized and to make retrieval easier. Other features include spell checking, importing graphics or text and exporting your documents as separate files for use with other word processors (with all formatting intact). Document Database requires an 80386 or faster processor, Win 3.x/95 and 2.5 MB of hard disk space. Regn US\$25.

Melb 8968**BookWhere? 2000**

BookWhere? 2000 searches databases worldwide on the Internet, primarily library catalogs. It retrieves bibliographic records that can be displayed or exported. The highly customisable user interface that includes host and database management, display rules for the various windows and extensive diagnostics. The program comes with several sample search sessions. Each session has a query and a set of databases. All you have to do is to open the session and (if Auto-Pilot is on) the search will begin immediately. BookWhere can be used as a viewer for BookWhere documents embedded in Web pages. The BookWhere web site (www.bookwhere.com) has a page of database links. Clicking on the link launches BookWhere and opens a new session window with a database already assigned. This is a true 32-bit application that uses background threads to perform the database searches and to update the user interface, making for a very responsive application. It is ideal for researchers and students. BookWhere? 2000 requires Win 95/NT and an Internet connection. Regn US\$125

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Object-oriented data modelling

TUTORIAL

Andrew Chan and Noel Craske

ODBMS
vs
RDBMS

The fundamental concepts underlying the object-oriented data model are straightforward. Human beings can perceive the real world as a variety of inter-related objects, and we can view these objects at different levels of detail. Breaking down an application area into objects and relationships is a common technique in systems analysis. However, traditional database models, including the relational model, break objects down into artificial structures which are more easily implemented on the rather restrictive computer architectures available today. Object-oriented (OO) databases on the other hand preserve the same high-level representation of the application throughout the analysis and implementation phases. This approach enables users to view the database as a collection of inter-related complex objects that may be viewed at whatever level of detail is necessary for their application. In this way, the object-oriented model provides a more natural representation of the real world.

Relational database systems have become the defacto standard for data processing applications. Their success has been largely due to their flexibility and ease of use, and also to the fact that a number of very powerful and efficient relational database management systems are now available in the commercial market. However, it is widely recognised that there exists a large class of applications for which the data modelling capabilities of relational systems are too limited. These applications can be characterised as complex, large-scale, data intensive programs, such as those found in the areas of computer-aided design and computer integrated manufacturing.

Object-oriented database systems are being developed to meet complex data modelling requirements of such applications. Such systems have moved away from the relational model and concentrated on developing the notions of type, data abstraction, inheritance and persistence within a database framework. There is no concrete definition as to what constitutes an OO model, however many researchers in the object-oriented world agree that the aspects of object identity, classification, polymorphism, inheritance

and encapsulation are important within any OO modelling system. Benefits of an ODBMS include persistent data, data sharing, concurrent data access, and recovery control.

ODBMS vs RDBMS

So what are the main differences between a ODBMS (Object-oriented Database Management System) and a RDBMS (Relational Database Management System)? The primary difference between the two is the ability of the ODBMS to support complex objects in an efficient and easy-to-manipulate form. A complex object consists of data, and processes that manipulate that data. Examples of complex objects include bill-of-materials hierarchies, CAD diagrams, and multi-media BLOBS (Binary Large Objects). In contrast, RDBMS products provide access to their data only in terms of their rows and columns. Also, other than triggers, an RDBMS can't store processing logic at the table level. Appreciate that triggers (procedures activated based on changing data values) are not part of the relational model. Triggers were added by vendors as a processing aid and they have no formal standing. Consequently as the number of triggers increases complex interactions between them can cause unpredictable results.

An ODBMS is ideally suited to store and manipulate complex objects. Although some relational databases can process these types of objects, it is seldom easy or efficient to do so. Using an SQL server to explode a bill-of-materials hierarchy from a fully normalised table, while technically possible, is not truly feasible in terms of ease of use or performance [1].

Object-oriented abstractions

The fundamental basis of the OO model is data and processing abstraction. I will cover four abstraction concepts:

- Classification/instantiation
- Identification
- Aggregation
- Generalisation/specialisation.

Note that the paired concepts of classification/instantiation and generalisation/specialisation are inverses—opposites of each other.

Classification and instantiation

The process of classification is central to the OO approach and is concerned with the grouping of objects with similar properties and behaviour into object classes. The objects belonging to a class are collectively described by a class definition. This means that instead of describing individual objects, the OO approach concentrates on the patterns of both state and behaviour that are common to an entire class of objects. Objects may also be classified into sub-classes based on additional semantics.

The state of an object is represented by its properties and its behaviour is represented by a set of procedures that are encapsulated with the properties. This class structure, encompassing both properties and behaviour, is the natural unit of abstraction in OO systems and may be used to model both entity objects and relationship objects. From a relational perspective, this differs from the relational model, in which entities are classified according to their structure, with no regard for their behaviour. The relationship type, which is a separate concept, is used to model the interactions among entities.

Instantiation is the inverse of classification and is concerned with the generation of distinct objects of a class.

Identification

Identification is concerned with the process whereby both abstract concepts (classes) and concrete objects (instances) are uniquely identifiable. For example, the name of a class should uniquely identify that class and also the distinct object instances which must be assigned some unique object identity.

From the relational perspective, all entity and relationship types in the model must have a unique name, and within each type definition the attribute names must be distinct. At the implementation level, relational databases distinguish between entities of a given type by means of key values, while instances of a relationship are identified by means of a combination of key values of the participating entities. However, key values represent an aspect of the

particular state of an object which may change with time, whereas the identity of an object should be unchangeable, despite changes to the object's state, location or structure.

Aggregation

Aggregation is an abstraction in which a relationship among objects is represented by a higher level, aggregate object (or type). Usually, a meaningful name is assigned to this aggregate type and one may use this name without reference to the underlying properties of the type. For example, it may be used as a property of some other object type, and thus by applying such aggregation repeatedly, a hierarchy of objects can be created. In the relational model for example, we aggregate attributes of an object to form an entire object. However in the OO model, aggregation is much more powerful in that it enables the combination of objects, that are related via some particular relationship, into a higher level aggregate object. Such abstraction is not catered for by the model, but is particularly useful if the aggregate object has additional properties or is itself to be related to another object.

Composite objects

Aggregation provides a convenient mechanism for modelling the relationship `IS_PART_OF` between objects. The `IS_PART_OF`

relationship occurs very frequently in database applications and represents a situation where one class is an assembly (or aggregate) of component objects. Each instance of an assembly consists of a set of component instances, and for this reason it is often referred to as a composite object.

We may add the notion of existence dependency to the `IS_PART_OF` relationship. A dependent object is one whose existence depends on the existence of another object and is owned by exactly one instance of that object.

Generalisation

Generalisation is an abstraction in which a set of objects with similar properties is represented by a generic object. Within an OO framework, it can be viewed as the most important mechanism for modelling the real world, since it enables us to graduate from the specific to the general. In other words, generalisation enables us to move from observations of the properties of specific objects to a model that represents those objects by generic classes. There are two methods in which generalisation may be effected

- The common properties and functions of a group of similar object types are grouped together to form a new generic object type
- Sub-types of a given object type may be defined, using predicates to

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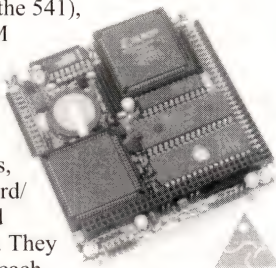
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PC540/1 PC/104 Computers

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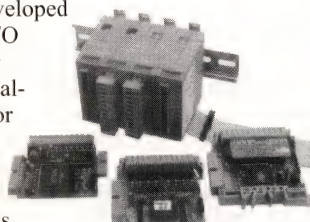
The boards run programs from PROM or a FLASH-based DOS provides the familiar DOS environment. DRAM to 1 Mbyte or CMOS RAM to 512 Kbyte is available.

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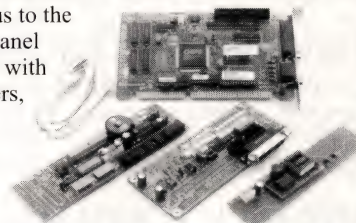
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constrain the values of attributes. One example which may be used to illustrate the first method would be to consider the employees of an organisation, who may have a variety of diverse functions ranging from managers to maintenance staff. However, they have many properties in common (e.g. employee number, name, address, etc) and for certain purposes (e.g. payroll) it may be convenient or more efficient to group these common properties into a single generic object type named "Employee". The sub-classifications of employee may themselves be generic object types. This therefore forms a Generalisation Hierarchy over employees.

Each generic object type in the hierarchy can be thought of as defining a class of individual employees. For example, analysts, programmers, and operators can be generalised to the object type computer staff. In turn, computer staff together with managers

and maintenance staff may be generalised to the object type employee. An individual programmer will be a member of the classes programmer, computer staff, and employee, but the relevant attributes of this programmer will vary from class to class. When this programmer is considered as a member of the generic class employee, any attributes of programmers that are not shared by other employees (e.g. the projects they are assigned to) will be irrelevant [2].

The future: Object/relational databases:

The future of both the object-oriented world and the relational world may be linked in terms of object/relational databases (ORDBMS). These hybrid databases are seen as the next generation evolution of relational database management system technology. An ORDBMS merges many of the features that were once strictly associated with an ODBMS with that of an RDBMS. In other words, the object/relational approach builds on the strengths of both relational and object-oriented concepts. It extends the capabilities of existing RDBMS to become object-aware.

The object/relational database model is appealing to users in that it offers an ODBMS ability to accommodate many-to-many relationships between data, is able to manage large, complex, unstructured data such as images and CAD/CAM drawings, and can support OO languages and development tools.

In relation to handling complex data types, an ORDBMS supports all the traditional relational functions as well as supporting data types other than the usual characters and numbers. Thus an ORDBMS is attractive because it enables applications and processing styles that have traditionally used proprietary data management techniques to become an integral part of the enterprise database. This offers the possibility of consistently managing heterogeneous business objects across multiple platforms, and promises a common interface for managing all types of data. The result is simplified user requests and application code.

In essence, complex data types are best represented as objects. They encapsulate the details of data, structures and methods regarding how the objects interact with other objects.

There are three capabilities an RDBMS must have in order to handle complex data types and objects efficiently:

- Storage and indexing techniques customised to each data structure
- Special methods for content-based retrieval
- To deliver peak performance for search and retrieval of complex data, query optimisation the retrieval process

itself must be customised to the type of data being retrieved [3].

Another important feature of an ORDBMS is that it provides general access based on content as well as direct access based on unique identifiers. Through object extensions an ORDBMS can also provide the rich data types, re-usability and extensibility commonly associated with OO applications.

In addition to these features, the object/relational database model supports the infrastructure of the relational world which encompasses data integrity, security, reliability, roller, backup, recovery, third-party query and application development tools [4].

Even though hybrid databases are the future of database technology, we must reflect on why is there such resistance to "pure" object databases? Many analysts believe that they required too much change for most existing users and that database administrators would need to be re-trained in the tools and techniques of running an OODBMS.

However, the history of the computing industry shows that evolution is the preferred method of change. And from a relational perspective, the object/relational database represents the next step in the evolution of relational database technology; it combines the best of both worlds.

We can therefore conclude that even though the ODBMS has a variety of features (such as modelling many-to-many relationships and supporting complex objects) that its relational counterpart does not possess, an object/relational database represents the next step in the evolution and future of relational database technology; as it layers an object framework over an existing relational infrastructure.

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Distributed objects

TUTORIAL

Stephanie Eguchi and Noel Craske

Client/server computing was introduced as a way to replace centralised mainframe applications and spread applications and process load between machines connected by a local area network. These systems involved a client that physically ran the application and servers responsible for data storage and access. This generation of client/server computing enabled an organisation to complete its transactions both efficiently and effectively, by enabling the sharing of resources, including databases, over a local area network. However, given recent advances in technology, specifically in the field of wide area networking, the current generation of client/server computing is becoming antiquated.

Amongst other things, the falling cost of high bandwidth has led to an enormous desire for organisations to complete transactions over a wide area network, such as the Internet. Microsoft's CEO, Bill Gates has been quoted as saying, "the information highway will generate a higher volume of transactions than anything has to date." Combine this increased number of transactions with the fact that transactions are likely to become longer, more complex and involve complex data in a multimedia environment and it becomes evident that the current generation of client/server computers will no longer be able to meet an organisation's processing needs.

To address the future needs of client/server computing, a new paradigm for developing client/server applications needs to be developed. The paradigm needs to address issues of:

- Rich transaction processing: There will be a need to manage transactions that can span multiple servers, long-lived transactions that execute over long periods of time as they travel from server to server and queued transactions that can be used in secure business to business dealings
- Roaming agents: The processing environment must enable agents to reside on any machine in the network
- Rich data management: The data used in future transactions is likely to include active multimedia compound

documents that will need to be moved, stored, viewed and edited in place, anywhere on the network

- Intelligent self-managing entities: With the introduction of new multi-threaded, high volume, network ready desktop systems such as Windows 95, machines now can act as either clients or servers. As such, distributed software must be developed that has the ability to manage and configure itself and protect itself against threats
- Intelligent middleware: Given the vast number of client/server machines likely to be connected in the distributed environment, middleware is required to make all servers on the global network appear to behave like a single computing system. It will be the role of middleware to ensure that users can join and leave the network dynamically, use the same naming conventions to locate any resource on the network and talk to any resource without worrying about the underlying protocol stacks or transport medium (adapted from Orfali *et al*, p. 6, 1996).

One paradigm that is being developed to meet all of these future client/server processing needs is that of distributed objects. It is envisaged that with the proper packaging and infrastructure, objects will help subdivide today's monolithic client/server applications into self-managing components that can work together and roam across networks and operating systems (Orfali *et al*, p. 15, 1996).

With a distributed object approach you do not need to worry about the format of the data or the physical location of the process. Now programs (through object methods) can be distributed just as data is distributed (Burleson, 1994, p. 123). It is this underlying characteristic of distributed objects that enable them to play an important role in meeting the requirements of the next generation of client/server computing.

Distributed objects can also be used to enhance the capabilities of the World Wide Web (www). Some of the additional benefits afforded to the www by distributed objects include:

- Turning static Web documents into active compound documents that can

interact with users

- Providing a seamless integration of various information media like video, audio, text and images
- Enabling server and network load-balancing by building hierarchies of interoperating proxy cache servers
- Bringing some order to the content on the Web, by providing interfaces to object-oriented and relational databases (Shah, p. 5, 1996).

What are distributed objects?

A distributed object is an object that can request and provide a service. In other words, a distributed object can act as either a client or a server. As well as having the standard object properties of encapsulation, inheritance and polymorphism, distributed objects are software components that have self-contained intelligence and are independent of the language, operating system and hardware architecture used for implementation (Shah, p. 4, 1996). Distributed objects can be distributed across the network and assembled by the user into distributed applications, without the user needing to know which server process performs a given function as all information about the function is hidden inside the encapsulated object (Sudama, p 68, 1995).

To be the most benefit to the user, there are several key characteristics that any distributed object technology must possess. These characteristics include:

- Location independence to enable objects to be located anywhere throughout the environment
- Security methods to authenticate all users and objects
- Multi-threading to enable concurrent control
- Transaction processing to support units of work that are made up of multiple operations performed by one or more objects
- Internationalisation to ensure the object can interpret multiple languages
- Persistence to maintain the state of an object across invocations
- Object management services
- Object repositories and class browsers to facilitate re-use

- Dependency tracking to enable developers to identify all clients, interfaces and methods that would be affected by a change to an object (adapted from Sudama, p. 68, 1995).

Figure 1, (source: Orfali *et al*, 1996, p. 17) is a diagrammatic representation of distributed objects and the important characteristics possessed by them.

The Object Management Group Architecture Guide

To assist in the orderly, standardised development of distributed objects, the Object Management Group (OMG) was formed. The key development of this body was the Object Management Group Architecture Guide, first issued in 1990. This guide has constantly been updated and the latest version, issued in 1995, identifies the four key architectural elements necessary to implement distributed objects. These elements are:

- The Object Request Broker
- Object Services
- Common facilities
- Application objects.

Object Request Broker

The Object Bus is the basic messaging mechanism needed by distributed objects to communicate with one another across heterogeneous languages, tools, platforms and networks. It also provides an environment for managing these objects, advertising their presence and describing their meta-data (Shah, 1996, p. 1). An integral part of the Object Bus is the Object Request Broker (ORB). It is the ORB that lets clients invoke methods on remote objects either statically or dynamically. Static invocation involves calling methods that have been fully defined at compile time while dynamic invocations enable you to add new classes to the system without

requiring changes in the client code (Shah, 1996, p. 1). When an ORB intercepts a request, it is responsible for finding an object that can implement the request, passing it the parameters, invoking its method and returning the results. The client does not have to be aware the location of the object, its programming language, operating system or any other aspects that are not part of the objects interface (OMG, 1997, p. 1).

Object Services

While the Object Bus is the fundamental communications component of the distributed object architecture, the OMG has enabled the functionality of the bus to be extended by enabling software industry experts to develop additional add-on features.

Some of the additional object services that the OMG has adopted include:

- Naming conventions
- Concurrency control
- Security
- Persistence
- Transactions.

Common facilities

The common facility component of the distributed object architecture is responsible for defining the rules of engagement for application objects. Common facilities address issues such as user interface, information management, systems management task management and specialised interaction between objects in different domains, for example those in the health, retail and financial domains (Orfali *et al*, 1995, p. 152).

Application objects

The final component necessary to develop a distributed object architecture is application objects. These objects are specific to the end-user application and build on top of the services provided by the prior three components.

Currently, there are several competing standards for developing distributed object architectures. Standards are required to ensure interoperability between objects from different vendors and, barring a single standard, to provide a way for objects written to different standards to interoperate (Sudama, 1995, p. 68). Given that distributed objects have the potential of creating a \$50 billion software industry by the turn of the century (Orfali, 1996, p. 23), many software vendors are anxious to become the leading developer of the standard adopted for the development of a distributed object architecture. Two of the more common standards that are currently used to develop distributed object architectures are:

- The Common Object Request Broker Architecture (CORBA), developed by the OMG

- Object Linking and Embedding (OLE), developed and controlled by Microsoft Corporation.

CORBA and OLE

CORBA is the OMG supported standard that provides the basic architectural specification for the development of the Object Request Broker. CORBA enables objects to communicate with one another, no matter where they are located or who has developed them. CORBA 1.1 was introduced in 1991 and defined the Interface Definition Language (IDL) and the Application Programming Interface (API) that enabled client/server interaction within a specific implementation of an ORB. However, it was not until December 1994, when CORBA 2.0 was adopted, that true interoperability was defined, by specifying how different vendors' ORBs can interoperate (OMG, 1997, p. 1).

Supporters of CORBA claim that it is the better distributed object standard as it is more mature, robust and flexible than OLE. Being introduced around five years before OLE has enabled CORBA to mature and become developed, accepted and used by a large number of software vendors. It is also claimed that CORBA is an excellent mechanism to bridge between Microsoft desktop and UNIX servers because CORBA products support both Microsoft and non-Microsoft operating systems (CORBA FAQ, 1996, p. 1).

OLE is based on Microsoft's Common Object Model (COM), an open specification for system level technology (Sudama, 1995, p. 69). The first real mainstream use of distributed objects using the OLE standard was deployed in 1996. The ability to declare a function as remote in Visual Basic, version 4, effectively provides a remote OLE automation object. OLE is well suited to front-end application development and if the entire distributed application runs under a Windows or Windows NT platform, OLE might be the best choice of standard to use.

It is important to understand that distributed applications can be developed using both CORBA and OLE. For example, client applications might be developed to access a set of OLE automation objects. OLE automation objects might, in turn, access CORBA objects running on a non-Microsoft platform such as UNIX (CORBA FAQ, 1996, p. 1). It may therefore not always be necessary to decide between these two competing standards, granting the developer the flexibility to select the most appropriate standard for each component of the system.

Conclusion

As the push to complete transactions involving complex data over a wide area network gains momentum, the need for a new client/server paradigm is becoming evident. It is believed that perhaps the most appropriate paradigm will involve

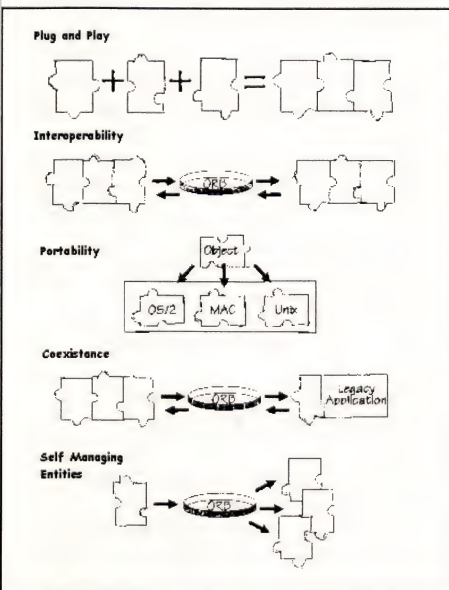


Figure 1. Characteristics of distributed objects

the use of distributed objects.

As distributed objects are composed of data, business logic and self contained logic, they have the ability to interoperate across networks, run on different platforms, co-exist with legacy applications through object wrappers, roam on networks and manage themselves and the resources they control (Orfali *et al*, 1995, p. 16). These characteristics, when combined with the object bus enable objects to plug and play, making it unnecessary to build information systems from scratch. Therefore, object technology has the ability to revolutionise client/server computing because it will make software easier and faster to develop for programmers, easier to use for users and easier to manage for systems administrators (Ronald Weissman, Director, NeXT).

The supervision of the distributed object industry by the Object Management Group has helped ensure that all software vendors are working towards the common goals of developing objects that adhere to an architectural standard and to provide open communication between objects developed under different standards. These distributed objects, developed under the guidance of the OMG, represent the ultimate form of client/server distribution and prepare us for the near future where millions of desktop machines will demand to perform as both clients and servers.

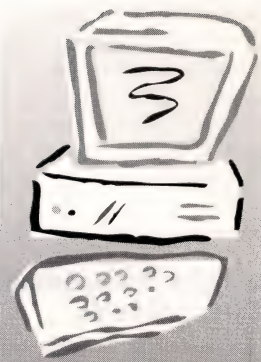
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The first Personal Computer

PC HISTORY

Werner Buchholz



This article was originally printed in the July 1997 issue of microCHIP (micro Computer Happenings In Poughkeepsie), the newsletter of the Mid-Hudson Computer User Group. It is reprinted with permission.

The first issue of the microCHIP newsletter appeared in 1977, and its name referred to the micro-processors used in the then novel desktop machines that had attracted the attention of hobbyists and other early users. But were they the first personal computers? Many people think so, and if you consult, for example, Van Nostrand's *Encyclopedia of Computer Science*, its article on personal computing begins with "The personal computer has been in existence only since 1974..." and points to the MITS Altair.

The answer really depends on how you define a personal computer. If you insist on a machine small enough to fit on a desk, the Altair may well have been the first, even though it had hardly enough capabilities to do much useful work. Better examples might be Radio Shack's TRS-80 or the Apple II, both of which appeared a few years later. If, on the other hand, you define a personal computer as a computer that is specifically designed to be used by a single person, you may have to go back about another 20 years to an IBM product that barely saw the light of day.

My nominee for the first personal computer is what was formally called the IBM 610 Auto-Point Computer, which was announced in 1957. It was the brainchild of John J. Lentz, a member of the Watson Laboratory—not the big IBM research lab in Yorktown but an earlier one near Columbia University in New York City.

According to the book "IBM's Early Computers" by Bashe, et al, Lentz started experimenting in 1948 with circuits for use in a "personal computer" (p. 530). Later the project became known as the "Personal Automatic Calculator (PAC)." Lentz had an engineering model completed in 1954,

but the machine remained in limbo until 1957, when its production was turned over to, of all things, IBM's division responsible for making time clocks and scales. With the long delay and with salesmen who knew nothing about computing, this was a sure death sentence for the machine.

As you can see from a photo on p. 506 in the Bashe book, the 610 was far from a small machine and, with a purchase price of US\$55,000, it was well out of range of amateur users. (I had a chance to play with it once in the Poughkeepsie lab.) The machine could be run like a desk calculator from a keyboard. For repeated calculations one could have the machine record the key-strokes on punched paper tape during a session with sample data and then play back the program for each run with stops for manually entering new data. Alternatively one could punch both the program and data for different runs on paper tape and have the whole executed automatically.

A feature of the 610, and the reason for the name "auto-point", was that it could do arithmetic on 31-digit decimal numbers with the decimal point moving back and forth depending on the number of digits required to the left and right of the point in the result. This mode, which is intermediate between fixed-point and floating-point arithmetic, appeared again later in handheld electronic calculators.

Some might object to calling the 610 a computer because it could not store the program on its magnetic-drum memory and thus was not a stored-program machine.

If that is part of your definition, you would have to look for another candidate, perhaps in the 1960s, for a first. I prefer to put the emphasis on "personal" and "automatic," for which the 610 qualified at least up to a point (no pun intended). The credit for a first certainly belongs to a machine that existed well before the 1970s. □

Mirage air display

MORE SMOKE AND MIRRORS...

Ken Holmes



In "Robots in Stereo" on page 58 of the August *PC Update*, I erroneously included an "s" in the name of `ROBOTMIR.LZH` and said it would go into the Games area of the BBS. I apologise if you found it difficult to find as it has, in fact, been placed in Area 23, "Melb PC Member written Software". Presumably, `AIRSHOW.LZH`, covered here, will go to the same place.

This program is similar in style, in that frames are calculated in real time by C++ code. Each frame is displayed while the following one is calculated and plotted on an off-screen memory page; the display is then switched to the next frame, and the old page, now off screen, is cleared ready for the next plot.

Airshow is pure demo and much less interactive; it may be slowed down or sped up by varying a delay between frames and it may be paused. A one-tenth scale plan view may be toggled on for a "radar" orientation of the observer, runway, line of sight to the formation and the current position of the picture-plane (screen). The aircraft are smoothly tracked by panning and zooming the picture.

The manoeuvres will horrify professional pilots but the consequences of an on-screen collision are not too severe. The sequences in the display are:

- Take off in pairs

- 180-degree climbing turn moving into hexagon formation
- Two downwind barrel rolls with intervening change to triangular formation
- 180-degree descending turn with formation changes to twin vee, triangle and three abreast
- Along the runway with formation loop and sequential loop
- 270-degree circle to cross runway
- Bomb burst in pairs
- Reform in line astern
- Two Immelman turns (loop and roll off the top) with intervening barrel rolls
- Peel off in strict sequence and
- 180-degree descending turn to land on runway.

The illustration shows the aircraft after the crossover above the runway following the bomb burst manoeuvre, chosen because it shows differing silhouettes and there is enough fore and aft displacement for you to see the stereoscopic effect; it is considerably more interesting on screen. As with the robots the low resolution EGA screen does not provide very good pictures for publication, but it is adequate for screen animation and frames can be drawn quicker to minimise flicker. The eyes are engaged by pattern and movement rather than detail; also the jagged

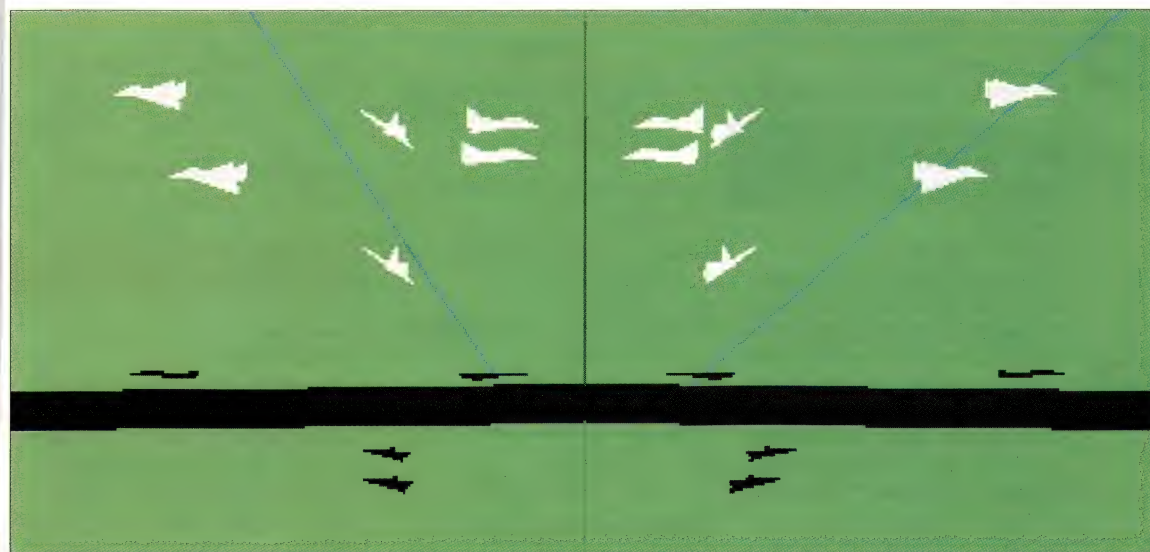
edges in the two pictures are mostly out of step and superposition tends to halve the perceived raggedness.

For formation flying, each aircraft carries with it several (invisible) points behind and to each side. Its follower keeps trying to maintain its position on the point allotted to it by adjusting its speed in three dimensions; there is enough lag to give realistically imperfect formations. Appropriate re-allocation of the reference point for each follower leads to smooth formation changes. Some manoeuvres, such as line astern loops and sequentially peeling off to land, are performed independently by each *Mirage* but the precision of floating-point arithmetic ensures they all perform identically, though displaced in time.

No one will derive as much pleasure from watching the display as I have had in generating it, but there are plenty who are interested in anything to do with aeroplanes. One member intends to convert it into a screen saver.

To see the picture in true 3D, you need a mirror, facing left with its left edge up the centreline of the picture with the mirror at right angles to the paper. Put the tip of your nose on the right edge of the mirror; your right eye looks past the back of the mirror at the right side of the picture; your left eye ignores the left of the screen but looks at its reflection in the mirror—it, of course, appears on the right side.

The objects on the right will appear in 3D stereo since each eye is seeing the view calculated for it. The left eye view was calculated for the right side but mirror-flipped and plotted on the left—the mirror reflection simply returns it to its proper place. The mirror can be about 10 cm high and 30 cm wide, though this is not very critical. □



Training courses



OCTOBER

Barry Fredrickson

Contacting us

You may contact Training with suggestions for training courses or other training-related matters by sending e-mail to training@melbpc.org.au

Applications

Introduction to Powerpoint \$45

Caroline Houston

6.30 pm–9.30 pm, Wed 15 Oct.

This course will give you an introduction to Microsoft Powerpoint.

Prerequisites: Students must be familiar with Windows.

MS Word v6/7 document automation \$60

Jill Renison

6.30 pm–9.30 pm, Fri 17 Oct.

On the completion of this course students will be able to: create and modify templates, work with bookmarks and fields, record, edit and run a macro.

Prerequisites: Familiarity with the Windows environment including mouse and keyboard skills. Students should be able to cut, copy and paste text and should have a basic knowledge of Word for Windows.

Communications

Introduction to the Melb PC BBS \$45

Lynn Pollock

6.30 pm–9.30 pm, Fri 10 Oct.

A basic examination of the Melb PC BBS covering initial logon, menu system, message areas, file areas and transfers, plus tips and tricks.

Prerequisites: None.

Note: This course has a companion course: File Management, Archiving and Compression Techniques.

Communications Workshop \$60

Doug Brooke

9.00 am–1.00 pm, Sat 4 Oct.

Accessing and using the BBS, configuring a communications program, problems and diagnoses, networks, netmail, file transfers.

Prerequisites: None.

Internet

Note: If you are starting from minimal knowledge, we suggest that the Internet courses are best attended in the sequence shown. More advanced students should attend at their skill level.

A special Windows 3.1 Internet course is available by request, subject to minimum student numbers. Register with the office.

1. Introduction to the Internet \$45

Lynn Pollock

9.00 am–12 noon, Sat 25 Oct.

An overview of the Melb PC Internet service. Live explanations of all the major programs that make up the Internet. Full detailed discussion of the hardware and software items involved. General questions concerning Internet connections.

Prerequisites: None.

2. Using the Internet with Windows 95 \$90

Lynn Pollock

9.00 am–4.00 pm, Sat 11 Oct.

This is the basic course for Windows 95 users. It suits people about to install Win 95 Internet software or novice users of the Internet who want a full explanation of the basic setup and techniques involved. Hands-on individual installation of 32-bit Internet software.

Explanation, discussion and live student Internet connections to demonstrate and practice all the major components.

Prerequisites: Must be experienced with Win 95.

3. Advanced Internet Part 1: Effectively using Web Browsers \$60

Lynn Pollock

1.00 pm–5.00 pm, Sat 25 Oct.

Complete examination and discussion of all the features in the latest versions of both Netscape and MS Internet Explorer. Configuring, bookmark and favourite management, saving images and data, offline viewing of saved information, effective use of search engines and techniques, and tips and tricks. Students have live Internet connections to practice their searching techniques.

Prerequisites: Students should have attended the basic Internet course or have a good understanding of Internet principles. This is an advanced course.

4. Advanced Internet Part 2: Internet Workshop (formerly More Internet) \$90

Lynn Pollock

9.00 am–4.00 pm, Sun 26 Oct.

Complete discussion and live student Internet connections examining all the features that make up the Internet today, with the exception of Web browsers. Students will gain experience with the following: Advanced e-mail, FTP, Archie, Gopher, Finger, Telnet, IRC Network, Internet Phone, newsgroups and list servers, also connection problems and tips and tricks.

Prerequisites: Students should have attended the basic Internet course or have a good understanding of Internet principles. This is an advanced course.

Beginners' HTML/Web page authoring \$90

Steven Goldate

6.30 pm–9.30 pm, Thu 2, 9 Oct.

The course covers the principles of HTML (HyperText Markup Language) for writing Web pages for the Internet. Participants learn to write HTML using a text-based and a WYSIWYG editor. Covers design aspects, things to do and not do, image file formats, uploading files to a server, getting noticed, and more.

Prerequisites: Basic Windows experience assumed. Experience using a text editor preferred.

Notes

Courses are held at the group's premises, usually in the training room. Some courses are held in the SIG room, so check when you arrive.

For more details see the BBS or the group's Web pages.

Enrolments usually close a week before the course starting date.

The address (until our move in late September or early October) is:

2nd Floor, 66 Albert Road
South Melbourne VIC 3205

After the move we will be at
27 Dorcas Street
South Melbourne 3205

There is normally plenty of nearby parking in the evenings or at weekends.

Advanced HTML/Web page authoring \$90

Steven Goldate

6.30 pm–9.30 pm, Tue 14, 21 Oct.

This course continues on from the Beginner's HTML course with participants developing enhanced Web pages.

Prerequisites: Beginners HTML/Web page authoring course.

Operating Systems, Diagnostics, Hardware

Visual Basic for Starters \$135

Gerard Schlosmacher

6.30 pm–9.30 pm, Mon 6, 13, 20 Oct.

Students will learn the evolution of Visual Basic, the VB development environment, data types, using files, what events are, essential VB language statements, and what to do about errors.

Prerequisites: The Basics of Programming course, or an understanding of programming concepts, including data types and use of files. Prior use of one or more programming languages.

Overview of Windows 95 \$45

Barry Fredrickson

9.00 am–12 noon, Sat 18 Oct.

Students will learn about the Windows 95 Desktop, Help, Explorer, Find, Shortcuts, and some of the Windows 95 utilities like Wordpad and Notepad.

Prerequisites: Familiarity with Windows 95 including mouse and keyboard skills.

Advanced Windows 95 \$90

Lynn Pollock

9.00 am–4.00 pm, Sun 12 Oct.

A full and detailed examination of Windows 95 for experienced users. Topics include adding hardware, registry control and editing, backup techniques, communications, networking with Windows 95, conflict resolution, enhancing performance, system maintenance, and many tips and tricks.

Prerequisites: Must be familiar with Win 95.

File management, archiving and compression techniques \$45

Lynn Pollock

6.30 pm–9.30 pm, Fri 24 Oct.

Explanation of file management including virus location, files you can delete, and file errors.

Archiving, covering some of the more common programs used and basic backup strategies.

Additionally some techniques will be discussed for files you download from the BBS or Internet.

Prerequisites: Must be familiar with Windows.

Note: This course is a companion to the Using the BBS course.

Virus protection and recovery \$45

Tom Coleman

6.30 pm–9.30 pm, Wed 8 Oct.

Understanding of what a virus is. Different forms of computer viruses and their methods of infection. How to avoid virus infection, and what to do if virus infection occurs.

Prerequisites: Familiarity with the subject matter of Computer Basics.

Memory management \$45

Tom Coleman

6.30 pm–9.30 pm, Wed 22 Oct.

Students will be aware of the differences between the various kinds of memory. Basic memory management requirements, and memory management techniques.

Prerequisites: Familiarity with the subject matter of a Computer Basics course, and with using a text editor.

Housekeeping a computer \$45

Tom Coleman

6.30 pm–9.30 pm, (contact office for date)

Optimising disk space, and minimising file loss or corruption. Avoiding data loss plus organising information.

Prerequisites: Familiarity with the subject matter of Computer Basics, and with computing terminology.

Booking

To book a course, please use the order form on page 31 or, for credit card orders, phone or fax the office (numbers on page 3.)

Melb PC's course: "Hardware upgrade and repair"

A USER'S EXPERIENCE

Jan Harkin

You don't have to know how a car works to drive one but it sure helps to keep the service-man honest when you can at least understand the names of some of the parts. And a little jargon never goes astray. The same applies to computers, only more so.

My introduction to computers was in the early 80s when I was asked to mind some computer classes at a secondary school for girls. Dawn, the computer teacher, was going to be away at a seminar. Before she left I sat in on one of her classes to see what they were all about.

The first thing she did was take the cover off the computer. Then she took out all the cards and passed them round the class. When they had been well handled she invited the students to put them back into the computer. Back went the cover. Dawn turned the computer on. And it worked. I was hooked.

Since that day I haven't been able to resist taking the cover off every computer I have owned.

Getting into it

It's one thing to look under a computer's cover and admire the circuitry. It's something else again to play with its parts. So one cold night last May I went along to Melb PC's "Hardware Upgrade and Repairs" training course to gain the confidence to do what Dawn did and rip out the innards of my computer and put them back in again.

The course is run by Tom Coleman, who has been teaching with the group for more than 10 years. Repairing

computers is "screwdriver work", not electronics, Tom says, but there are many traps. He goes through some of the major ones in the course.

We learnt about the basic parts of the computer, like what the red line down the side of the hard drive cable is for, and how not to blow up the motherboard.

If you don't understand what goes on at startup, Tom says, you can get into a lot of trouble if you are upgrading. So the startup procedure was explained. "Learning is reinforced, the more senses you use," Tom says. So the course was very much "hands on". We took the lids off different types of computers and compared the motherboards of 386s, 486s and Pentiums. Out came the expansion boards and we examined those as well.

Saving money

One very practical thing we learnt was how to change the CMOS battery. When the battery died on my laptop last year I was quoted a minimum of one hour's labour to replace it, plus the cost of the battery. The manual said the battery needed to be changed in less than one minute. So it was an expensive minute. In the course Tom shows how to change the CMOS battery in a desktop computer where the battery is under the lid. This knowledge alone would pay for the course if your repairer wants to charge anything like mine for battery replacement. [CMOS, pronounced "see moss", refers to the computer's configuration memory. It is a small amount of memory that holds information the computer needs to know each

time it is turned on, such as the type of hard drive in your system. The memory has a battery attached so that the information isn't lost when the computer is switched off. If your computer can't remember its configuration information and you have to re-enter it whenever you turn on the computer, you probably need to replace the CMOS battery.]

The course covered the basic steps to upgrade a hard disk or install a second one. We also learnt how to partition the hard drive to limit the amount of wasted space on a large one. Tom explained how to format a drive using FDISK and a lot of caution.

Half an hour after the course was meant to end we were still asking questions, and Tom was still answering them. Whatever questions we threw at him he answered without hesitation. He knows his stuff.

Hardware upgrade and repair is a large topic. It would be impossible to cover everything in one three-hour course. But if you're looking for an introductory course on what goes on under the cover, to take some of the mystery out of how the computer works, this course is well worth the time and cost.

At the end of the night we took up the screwdrivers and put the computers back together again. Hopefully they still work.

Now I'm itching to start upgrading. But that's another story.

SOFTWARE REVIEW

Bernadette Houghton



With software upgrades being issued at an ever-spiralling rate, I've been conscious of the need to get a prompt start on reviewing new programs—just in case a new version comes out before I've had time to finish

my write-up. So, when I received a copy of Visio 5.0, my first and most overwhelming sensation was of relief—thank goodness I'd finished my review of Visio Technical 4.5 (*PC Update*, July 1997) in good time! As I write this, it's only August.

With the latest release, Visio International has brought the Visio product family into line. Visio Standard 5.0, Visio Technical 5.0 and Visio Professional 5.0 now have a common graphics engine. The Technical and Professional editions include the full functionality of the Standard edition, but have additional features targeting the engineering/technical and information technology markets respectively.

In case you're not already familiar with Visio, it is a 2D drawing program which relies primarily on the manipulation of intelligent, ready-made shapes called SmartShapes. However, it is much more than a simple graphics package. You can use Visio to design customised business solutions, linking your Visio drawings with spreadsheets and external databases to create fully integrated drawing systems. To give you some idea of Visio's potential, you could

- Maintain an asset register by linking an inventory database to a Visio space plan
- Update the inventory by adding or deleting shapes from the plan
- Generate new Visio bolt shapes from a bolt specification database

**great potential
for businesses
to integrate
drawing operations**

- Generate a material cutting list using drawing specifications (e.g. windows, doors, staircases)
- Generate customer mail-outs when specified events occur (e.g. a shape is updated)
- Quickly diagram crime or accident scenes.

I looked at a beta preview of the Visio family, as a copy of the final product (released mid-August 1997) was not yet available. I could easily use up a dozen or so pages of *PC Update* to explore Visio in depth. However, to spare readers' sensibility and save our Peter from the frustrating job of finding the space, I'll explain only how Visio works and skim the main features of the new releases.

Info Box

Visio 5.0

System requirements

- 486DX2-66 processor (Pentium recommended)
- Windows 95 or Windows NT 4.0
- 16 MB (Windows 95)
- 24 MB RAM (Windows NT)
- 15–110 MB hard disk space, depending on installation options
- CD-ROM drive

Availability and cost

Should be available from most software retailers, otherwise contact Visio International Customer Service
Ph: 1800 551 976
Fax: 1800 559 366

RRP:

Visio Standard \$299 (upgrade \$149)
Visio Technical and Visio Professional \$549 (\$249 upgrade)

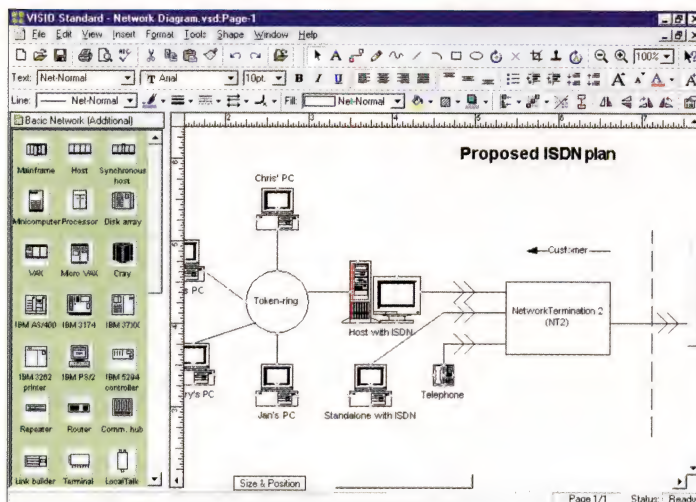


Figure 1. Visio Standard's main screen

Label	Prompt	Type	Format	Checked
"ID"	"Enter inventory ID number."	0	No Formula	No F
"Location"	"Enter equipment location."	0	No Formula	No F
"Manufacturer"	"Enter manufacturer name."	0	No Formula	No F
"Product Name"	"Enter product name."	0	No Formula	No F
"Model Number"	"Enter product model number."	0	No Formula	No F
"Description"	"Enter equipment description."	0	No Formula	No F

Connection Points	X	Y	A	B	C
1	Width/0.5	Height/0.5			
2	Width/0.7	Height/0			
3	Width/0.7	Height/0.75			
4	Width	Height/2			
5	Width/0.1	Height/0.5			
6	Width/0.2	Height/0			
7	Width/0.2	Height/1			

Controls	X	Y	X Dynamics	Y Dynamics	X Behavior	Y Behavior
1	Width/0.5	Height/0	Width/2	Height/2	4-2-ScratchA1	4-2-ScratchB1

Figure 2. Programming a SmartShape using a ShapeSheet

How it works

Visio is very much a drag and drop drawing program. You create drawings by dragging SmartShapes from a series of stencils, then positioning, resizing, gluing and otherwise manipulating them. Shapes include not just traditional symbols, but also dimensions, scales, text, fills, line ends and so on. While Visio's emphasis is on pre-defined elements, you can also create your own shapes, or customise existing ones. The trade-off between Visio and normal CAD (computer-aided design) packages is that you can create diagrams in far less time with Visio, but creating custom shapes is a little trickier and more time-consuming. Visio comes with a large range of ready-made SmartShapes (1300+ in Visio Standard and 2000+ in Visio Technical and Visio Professional) and you can also purchase additional shapes and add-on products if you need them.

Unlike dumb symbols, SmartShapes behave intelligently when manipulated. Stretch a bolt in any direction, for example, and it resizes proportionally; stretch the tail of an arrow, and only the tail resizes. You control the behaviour and properties of SmartShapes by manipulating their control handles or programming their ShapeSheets. ShapeSheets are basically mini spreadsheets, and you establish relationships between shape properties by referencing cells just as you do in a normal spreadsheet. For example, you could link the length of a bolt to its width, or its colour to its dimensions to indicate whether the bolt meets acceptable tolerance levels.

You can store data within shapes, and extract and analyse the data using either Visio's Property Reporting Wizard or various development tools. Visio includes built-in VBA (Visual Basic for Applications), full OLE 2.0 compatibility and support for Lotus Notes/FX and ODBC-compliant databases. Alternatively, you can customise your Visio work environment, create add-on programs and share information with other applications using stand-alone Visual Basic, C or C++.

Visio has a range of templates and Wizards to make drawing easier. Apart from the Property Reporting Wizard, some others are the

- SmartShape Wizard, which helps you customise SmartShapes
- Project Timeline Wizard, which generates timelines using external data files
- Office Layout Wizard, which simplifies the process of setting up space plans.

New in Visio Standard 5.0

Apart from new SmartShapes for marketing and advanced flow-charting, there are several new and updated Wizards. The Database Wizard is faster, with new custom property types and support for additional ODBC drivers. The Database Export Wizard exports ShapeSheet data into databases. The Organisation Chart Wizard creates charts automatically from ODBC-compliant databases, and the Property Reporting Wizard writes data associated with shapes to a spreadsheet. The new Shape Explorer searches for and catalogues SmartShape symbols available either on your computer or Visio's Web site.

If you use Microsoft Outlook, Visio can automatically record the time you spend working on your Visio drawings in the Outlook Journal. There is support for Open Document Management Architecture (ODMA) and Microsoft Internet Explorer 4. Internet tools include hyperlinking more consistent with the Microsoft implementation and more precise hot link boundaries.

A full screen preview mode, toolbars compatible with Office 97, tabbed dialogs, simplified menus and simpler page resizing, help to make Visio easier to use. Dynamic-routing connectors respond intelligently to shape movements and "jump" when they cross other connectors. Shapes now include custom fill patterns, line ends and line patterns. You can glue 2D shapes to multiple guides and change their dimensions by moving the guides. Import/export support includes WMF, CorelDraw 7, and Visio will display DWG and DXF files as embedded objects.

New developer features include built-in Visual Basic for Applications (VBA), support for Active X controls, in-place editing of embedded objects, named connectors and new automation methods and events, including a new ShapeSheet function, CALLTHIS.

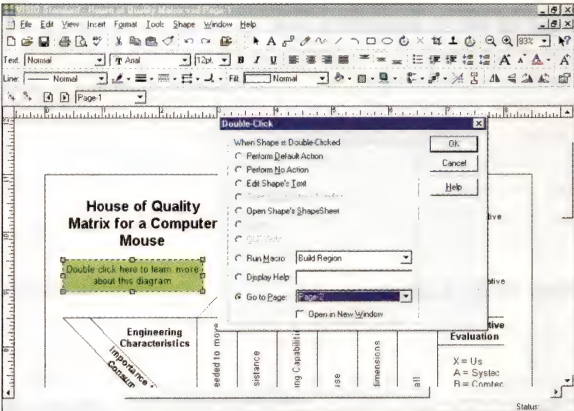


Figure 3. Programming SmartShape behaviour via a

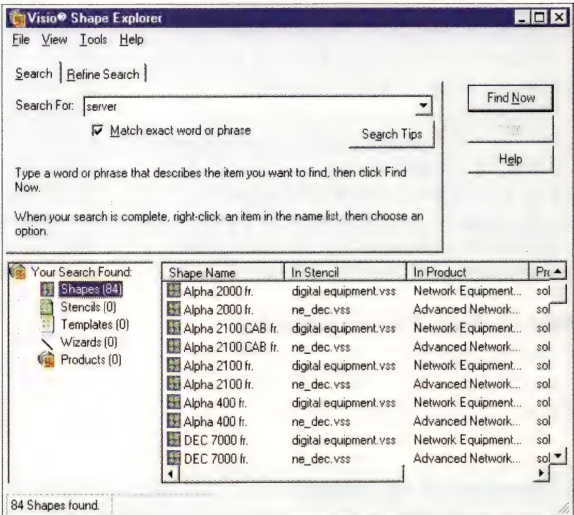


Figure 4. The Shape Explorer

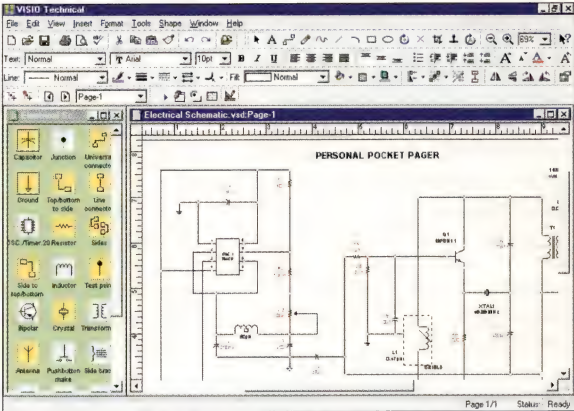


Figure 5. Visio Technical's main screen

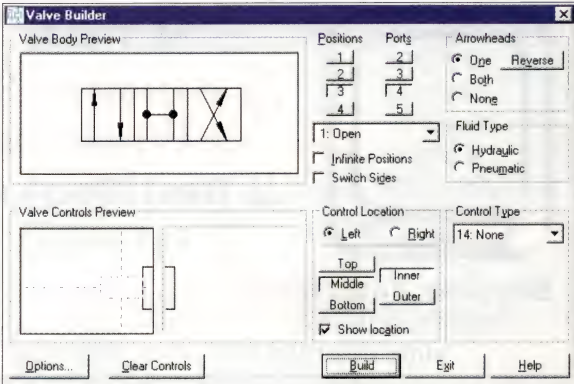


Figure 6. Visio Technical's Valve Builder

New in Visio Technical 5.0

Visio Technical's new SmartShapes cover facilities management, automation and building security and process plant design. There is also a range of parametrically driven mechanical shapes from EMT Software, including a database with geometry definitions for commonly used mechanical parts.

New tools included

- Area Analysis, to calculate floor areas
- Valve Builder, to help you create pneumatic and hydraulic valve shapes
- Netlist Generator, to generate a list of components, connections or nodes and component values for electrical circuits.

Netlist also creates a SPICE (Simulation Program for Integrated Circuits Emphasis) input file from a Visio drawing.

When importing AutoCAD drawings, you can now control layers, scaling and display of named views, and there are 45 new unscaled AutoCAD-compatible hatch patterns and line types. Two new drawing commands—Move and Offset—are available only in the Technical edition.

New in Visio Professional 5.0

Visio Professional's new SmartShapes include vendor-specific networking shapes (3Com, Bay Networks, Cabletron,

Cisco and Hewlett-Packard) and shapes for the Unified Modelling Language (UML) and Object Role Modelling language. There is a UML Semantics Checker Wizard and an updated Web Diagram Wizard which supports frames and can handle a wider range of HTML codes. Support is added for the Microsoft Repository storage system.

Assessment

Although I looked only at a beta preview of the three Visio products, I found them surprisingly robust for pre-release programs. Most features were fully operational and although there were a few bugs and loose ends, I didn't experience any crashes.

Apart from their obvious value as quick diagramming tools, the Visio family of products offer great potential for businesses to integrate their drawing operations. Visio particularly addresses the situation where drawings are linked to database specifications or reports are based upon the elements of a drawing. You can create complex diagrams in a fairly short time and, of course, there is a much shorter learning curve.

Visio's biggest drawback, as I see it, is that many actions, which are simple and straightforward with other drawing programs, are much more complicated

using Visio. For instance, creating new shapes from scratch takes longer, and to create macros and customise menus and toolbars, you have to use VBA. Some tools lack intuitiveness and behave in a non-standard manner; however, it is basically a matter of getting used to them. As you can see in the screen shots, Visio's default screens are very cluttered in the beta preview, but this is a minor detail. It is easy to hide toolbars you don't wish to display.

As for the question of whether Visio is a worthwhile upgrade this time around—it depends a lot, of course, upon which version you are currently using. Some of the "new" features in Visio Standard were available in Visio Technical 4.1 and 4.5, for instance.

Reasons to consider Visio

- Your drawings use mostly pre-defined symbols
- You work with CAD diagrams created by others
- You wish to integrate your drawing and database/spreadsheet package.

On the other hand, if you need to create complex drawings from scratch, look elsewhere. □

Volunteer of the Month

David Webster has managed the Shareware library for over five years, and was involved with the team well before that.

Before the days of the BBS and the Internet, Shareware played a most important role in Melb PC's activities, and many members joined purely to obtain access to the library. Shareware continues to be one of our most important activities particularly for members in outer areas, and for members without modems.

David's whole family is involved in this work, including his wife Yvonne, and his two sons Glenn and Ian. They continue to seek out new sources and the latest versions of software to include in the library.

The Shareware Review in *PC Update* is compulsory reading for everyone looking for something new. The continued success of our Shareware resources is due almost entirely to David's enthusiasm and energy.

Congratulations. □

V-Buster 8 Upgrade #7

AN UPDATE

Bob Burt

Since the release of V-Buster ver 8 there have been a number of upgrades to combat the increasing number of viruses that continue to appear. In my last update to this subject (*PC Update*, March 1997) I noted that the number of detectable and removable viruses quoted (for V-Buster's 2nd upgrade) was 10412. The current upgrade is the 7th for Version 8 and the number has now risen to 13022.

Additionally, some improvements have been made to the program. The major change is the introduction of a Super Fast Scan mode that, while not being as thorough or accurate as a Full Scan, is comparable in accuracy to many current

anti-virus programs. Scan modes can be initiated from command lines. Also, before a rebuild of the Partition Table of a hard disk you will be prompted to save a copy to a diskette in drive A before the rebuild commences.

I have uploaded a zipped copy of V-Buster 8/13022 to our BBS and it is available as VBUST8U7.ZIP. If you are a V-Buster owner, you should unzip the file and copy all the files except NOTE.COM to your original (copy-protected) diskettes or directly to your VBUSTER sub-directory. If you do not have the program, you can use the upgrade as an evaluation copy, which will remain active for three months and will detect, but not repair viruses. □

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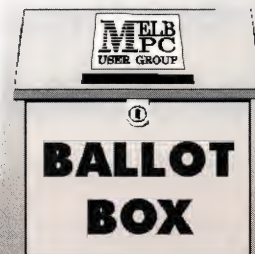
Bayside Solutions
Computer Consultants

eMail: bayside@pobox.com
<http://www.bayside.com.au/~bayside>

Mob: 0419 598 098 Tel: 9587 3455

Annual General Meeting and Elections

CLUB ADMINISTRATION



Bill Ford, Secretary

Nomination Form

Position(s) for which nomination is made (tick as appropriate).

- President ☐
 Vice-President ☐
 Secretary ☐
 Treasurer ☐
 Committee Member ☐

Member's name and membership number

Member's signature of acceptance

Proposer's name and membership number

Proposer's signature

Seconder's name and membership number

Seconder's signature

Date / / 1997

A photocopy of this form is acceptable.

Notice is hereby given that the 14th Annual General Meeting of Melbourne PC User Group Incorporated will be held on Wednesday 3 December 1997 at the Pharmacy College, 381 Royal Parade, Parkville at 6.30 pm.

The December issue of *PC Update* will give details of Committee nominations and proxy forms for those unable to attend in person.

Agenda — Annual General Meeting

1. Minutes

To consider and, if thought appropriate, pass the following resolution: "That the Minutes of the 13th Annual General Meeting held on 4 December 1996, be approved as a true and correct record."

2. Reports

To receive the report from the President.

3. Election of Committee of Management

President, Vice-President, Treasurer, Secretary and eight ordinary members of Committee.

4. Accounts

To receive and consider the Treasurer's report and, if thought appropriate, pass the following resolution: "That the statement pursuant to section 30 (3) of the *Associations Incorporation Act 1981* containing the Income and Expenditure of the Group for the year to 30 June 1997 and the assets and liabilities of the Group at 30 June 1997 be accepted."

5. Appointment of Auditor

Under rule 37 such Auditor may not be a member of the Committee, but may be a member of the Group, and shall be a member of the Australian Society of Accountants, Victorian Division or the Institute of Chartered Accountants of Australia, Victorian Branch, in public practice.

Nominations

Nominations must either be posted to:

The Secretary
Melbourne PC User Group Inc
PO Box 283
South Melbourne vic 3205

or be hand- or courier-delivered to:

The Secretary
Melbourne PC User Group Inc
27 Dorcas Street
South Melbourne vic 3205

Nominations by fax, e-mail or BBS cannot be accepted. Nominations of candidates shall be in writing, signed by two members of the group and accompanied by the written consent of the candidate (which may be endorsed on the form of nomination). They must be received by the Secretary before 5.00 pm on 31 October 1997.

Nominations received after the closing time will not be accepted.

Nominees may optionally submit one statement, *not exceeding one hundred words*, in support of their nomination(s). These must be received by the closing time for nominations. Statements received late, or those exceeding 100 words, will be rejected.

Peachtree Complete Accounting for Windows v4

ACCOUNTING SOFTWARE

Ted Powell



reported on Peachtree versions 3.0 and 3.5 previously in *PC Update* (September 1995 and 1996). For two years now we have been using Peachtree to run the accounts of a small chemical company, with a staff of 26 and 700 invoices per month. When we started using Peachtree, it was the least expensive networkable accounting system available, and it still represents excellent value for money. One advantage of using Peachtree accounting software is that it has a large USA user base. Thus there are frequent updates. A disadvantage of Peachtree is that it has been slow to adapt some features, such as payroll, specifically for the Australian market.

Peachtree Complete Accounting (PCA) comes with a wide range of standard features that are sold as extras on many other systems. Examples include, Bill of Materials, Payroll, the ability to design your own forms such as invoices, ten delivery addresses per customer, the ability to cope with partial deliveries and five custom fields. It also comes with a Fixed Assets module, although not all

components are suitable for Australia. PCA v4 can also be networked to any number of users using a variety of systems including Novel and Lantastic. We use Windows for Workgroups 3.11. PCA will also operate on Windows 95, Windows NT 4.0 and OS2/Warp.

PCA v4 also has standard modules such as invoicing, purchasing, general ledger, import—export, built-in backup and about 90 customisable reports. You can print cheques directly from the program. You can run multi companies on PCA. A separate reporting module extends the reporting power even further. PCA holds 25 accounting periods.

We have been building up data rapidly on our system, and one problem we experienced with PCA v 3.5 was slow data purging. Eighty-five MB of data slowed down our system, and the slow purging process discouraged deleting old records. Previously the purging process took more than a weekend to complete! PCA v4's faster purging completes overnight.

New features in PCA v4

Sales Orders can be typed as a separate document and partial shipments and invoices can be made against the sales order. You can produce a back order report to see what goods have not been delivered. You can type a quote and then convert it to a sales order. You can produce a pick list to assist in pulling items for customer orders. Freight charges can be added separately to the invoice. The program also accommodates printing of refund cheques to customers.

Purchase Orders: With PCA v4 you can receive partial shipments against a purchase order. It maintains a history of purchase orders, and can receive a refund cheque from a supplier. It will print an inventory re-order report to tell you what to order. It will report on under- or over-shipped purchases, you can also close an invoice manually even if some items are still outstanding.

Job Costing is now more flexible so you can better track and measure the profitability of your work and you can control costs. It compares Actual Cost versus Actual Revenue, enables the break down of jobs into smaller components called phases, provides phase and cost

codes to break down job costs into specific tasks and categories, identifies cost types and creates estimates, and accommodates customisable job reports.

Fixed Assets is supplied as a separate module with separate disks and manual. You can now calculate depreciation instantly and accurately.

Other Features: You can store a separate description of inventory items for both sales and purchases, and the multi-user capability of the program has been enhanced.

Installation and use

Visual changes to the look and feel of the program from version 3.5 to 4 are relatively minor. We experienced no problems installing the upgrade onto a seven-user system. PCA v4 comes with both one CD-ROM and six 3.5-inch disks, and a 764-page manual. The CD-ROM made installation on the network easy.

Our staff have had no problems adapting to the new version. PCA v4 has a very good tutorial. It comes with a sample company installed to make the learning process easier. There is also an accounting primer module. Even without the tutorial, PCA is a very easy program to use. The Windows interface is a big advantage in this regard. The program also offers customisable fields, another feature I have found useful.

The change-over hasn't been trouble free. Some of our problems were related to imperfect setup of the network, some to a local power failure during a thunderstorm and some to software problems. However, since installing PCA v4, we have had one free update of the program, and Angela Evans, of Binary Vision, the Melbourne agent for PCA, has been able to give us backup support, via telephone and on-site and by liaising with PCA technical support in America.

We now operate our network using a dedicated file server, whereas previously the file server computer was also used as a workstation. The RAM on the file server was also increased from 16 to 32 MB.

Conclusion

Like its predecessors, Peachtree Complete Accounting version 4 represents outstanding value for money. □

Info Box

Peachtree Complete Accounting for Windows v4

Minimum System Requirements

- Windows 3.1 / 95 / NT v3.51, OS/2 or OS/2 Warp
- 24 MB free disk space
- 8 MB RAM (16 recommended)

Availability and cost

PCA is available from Binary Vision (an authorised PCA support centre).
Ph: (03) 9735 4820
Fax: (03) 9735 4800

RRP:

- \$695 with 30 days free local phone support for new users
- \$170 for 12 months phone/fax support. On-site support is also offered
- \$100 for an Australian payroll package
- PCA Version 3.5 is available for \$499
- A smaller package, Peachtree First Accounting sells for \$175

Reminiscences of "Early Days"

PC HISTORY

Chuck Gaston



There must be some people around whose computer club memories go back further than mine. I wasn't even aware of our user group (the Mid-Hudson Computer User Group) until after the IBM C was announced in August of 1981. There was a demonstration of the new machine at the IBM Country Club shortly after that announcement, and the gym was packed. The computer club was accepting membership applications in the hallway outside, and my recollection is that all those who joined then and later in that autumn boosted membership from less than 50 to more than 200. The focus of the club changed quickly from Apple and home-built to almost exclusively IBM. Club newsletters at that time generally had some sort of cartoon on the cover. The movie, *Flash Gordon* had been released recently. One of the newsletters that autumn had a cartoon personal computer, looking very much like Ming the Merciless, giving an ironically prophetic paraphrase of a line from the movie: "Pitiful mainframes! Who can save you now?"

The earliest club meeting I can recall featured several people showing what they had managed to do with their homebrew systems. The

only one I remember specifically was a black-and-white TV display showing the discs moving from peg to peg as the "Towers of Hanoi" puzzle was being solved.

My first contribution to a meeting was about a year later when my sons and I lugged a PC system and large TV to the meeting to show off the Halloween pumpkin we had created. Using BASIC GET and PUT statements, we had the pumpkin's eyes, nose and mouth change randomly among different pre-stored

shapes. With a little imagination, it almost seemed to be singing along with the recording of *Monster Mash* we played. Orange was not one of the 16 programmable colour choices, but red could appear orange with a little tweaking of the TV colour settings.

For the benefit of those who don't remember, I should point out that IBM PCs were not instantly available. There was an employee discount and a time-payment plan to ease the burden of getting a \$4000 system with 64 KB memory, one 160 KB floppy drive, a monochrome display, a dot-matrix printer and a few software packages; however, there was a lottery for delivery date. A few lucky souls took delivery by Christmas; we fell somewhere in the middle, with a July 4 date.

For many years there was an "open house" each summer to introduce more people to the joys of home computers. At one of those I remember two hobbyists working about an hour to get all the cables and protocols matched for one small file transfer between different systems. As an experiment, I managed to transfer a small file from one PC to another by telephone—without modems!

The first PCs were capable of storing

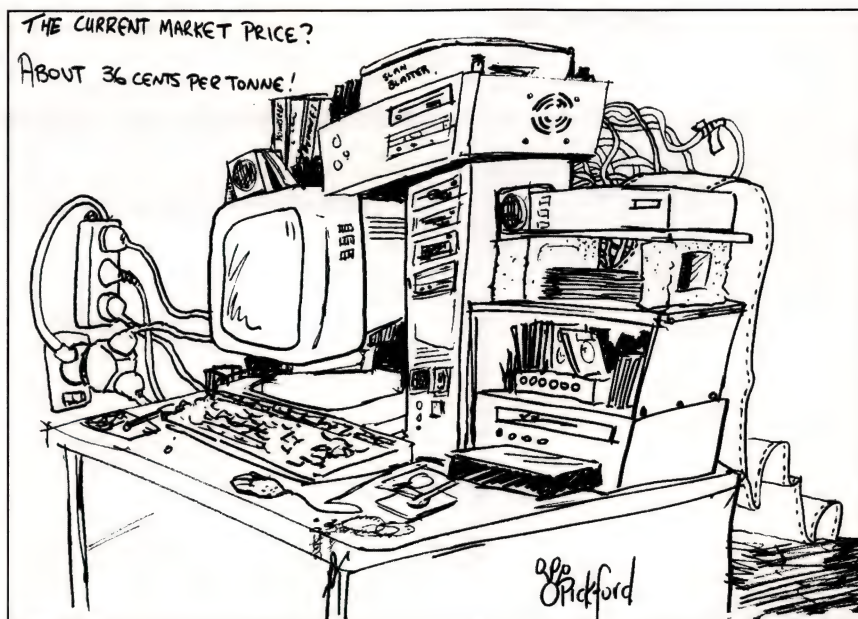
This article was originally printed in the July 1997 issue of *microCHIP* (micro Computer Happenings In Poughkeepsie), the newsletter of the Mid-Hudson Computer User Group. It is reprinted with permission.

files on a tape recorder. I played one of those tapes over the phone to another tape recorder, and read the duplicate tape back into a PC. It took several tries to get volumes right, but eventually it worked. Buz Burzawa took over as editor of the newsletter in June of 1982, and immediately changed its name to the *microCHIP*. This stood for "micro Computer Happenings In Poughkeepsie". He must have chosen well, because the newsletter name stuck, in spite of several changes of editor and club name.

For several years Buz stuck with his Apple computer, and delighted in showing things it could do that the IBM PC could not. He had a program called Gutenberg that enabled him to turn out a much nicer newsletter than anything then possible with the IBMs. He also had a nine-voice sound card that enabled him to compose a very pleasing arrangement of "Row, Row, Row Your

Boat". At one meeting Buz dashed in late, and very excited. He had just returned from a computer fair, where he had purchased a 5 MB hard drive for only \$500!

Sometimes it is amazing to recall just how much PC hardware has changed over the years. It's much harder to quantify, but software may have changed even more dramatically. So, too, the computer club has changed. I look forward to all the changes of the next decade or two, but expect that I'll still be using Personal Editor regularly.



FreeHand Graphics Studio 7

SOFTWARE REVIEW

Bob Burt



"Full features and flexibility in FreeHand" provides an alliterative reference to at least some of the major benefits of this release.

FreeHand Graphics Studio 7 (FGS7) is a substantial illustration package which generates simple designs with ease and yet provides all the major elements required by graphics professionals.

The package

Now the property of Macromedia Inc, FGS7 is provided on five CD-ROMs, accompanied by seven substantial manuals

- Getting Started—154 pages
- Using FreeHand—329 pages
- Using xRes—265 pages
- Using Fontographer—346 pages
- Quick Start (for Extreme 3D)—65 pages
- Using Extreme 3D—615 pages
- Clipart and Fonts—231 pages.

Installation

This requires some thought. Not that installation is difficult—the Install Wizard manages this for you very smoothly. The only problem is that a "typical" installation (the recommended option) will consume 100.83 MB of hard disk space, quite substantial even in these days when larger capacity disks are becoming the norm. Even so, the vast

majority of clipart and fonts would have to be accessed directly from the second CD-ROM and none of the Wraptures, a collection of seamless textures for Extreme 3D, is transferred from its special CD-ROM.

You finish up with seven applications in your Windows Program display

- FreeHand 7
- Fontographer 4.1
- xRes 3
- Extreme 3D 1
- Script Editor
- Shockwave Graphics Document
- Macromedia Showcase CD-ROM.

You have not quite finished. Macromedia has its own Website, <http://macromedia.com/software/freehand>. This site provides a free upgrade package for FGS7, FH702UP.EXE (900 KB) that, once downloaded and installed, upgrades your version from 7 to 7.0.2. This adds Xtras for Flash Export, improves GIF and PDF support and enhances Photoshop 4 integration. Incidentally, it adds a further 3.29 MB to the applications on hard disk.

FGS7 comes with 10,000 clipart images, 500 fonts, 500 FreeHand templates, 250 MB of high-resolution photographs and many 3D models.

Using the suite

If you are a newcomer, you will find the tutorials provided in the manuals most

helpful. The major one in the Getting Started manual is carefully designed so that you use, in sequence, Fontographer, FreeHand, Extreme 3D and xRes to create one 3D logo image in colour and then use FreeHand again to prepare a letterhead, incorporating the logo.

The package comes with version 1 of Extreme 3D, but you are provided with a card to post to the Australian distributors and obtain, without cost, version 2 of the product, which I have confirmed is now available from them. Unfortunately, the new version had not arrived at the time of writing. As the tutorial assumes you hold version 2, I have not completed the 3D tutorial for preparing the logo. All the other steps worked fine, though.

Online tutorials are available from the CD-ROMs for both FreeHand and Extreme 3D, providing the basic usage of each of these 32-bit applications.

FreeHand

This is the key package to the suite. It is an object-oriented drawing application that makes good use of tool panels, which float on top of the pasteboard and can be placed anywhere you wish. It is equipped with a main toolbar to trigger the most common operations, a text toolbar to accommodate, predictably, the main text commands, and an info bar to provide data on selected objects and page rulers.

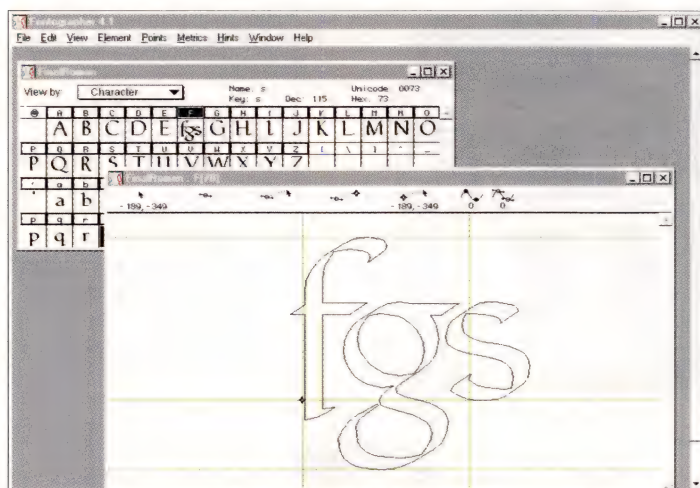


Figure 1. Creating a figure in a character set

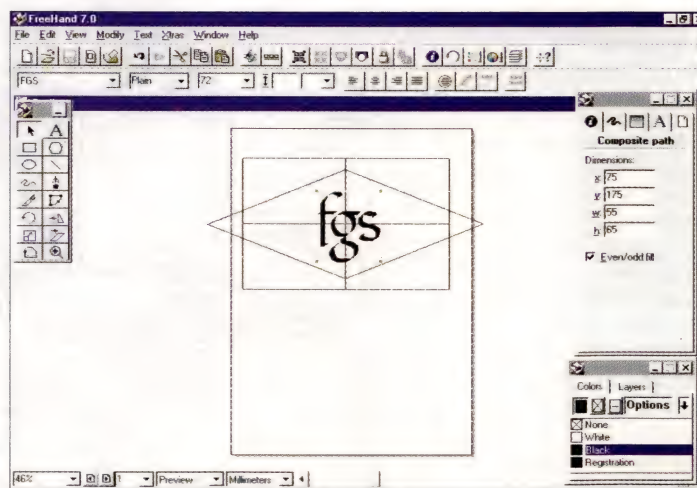


Figure 2. Using FreeHand to prepare a logo outline

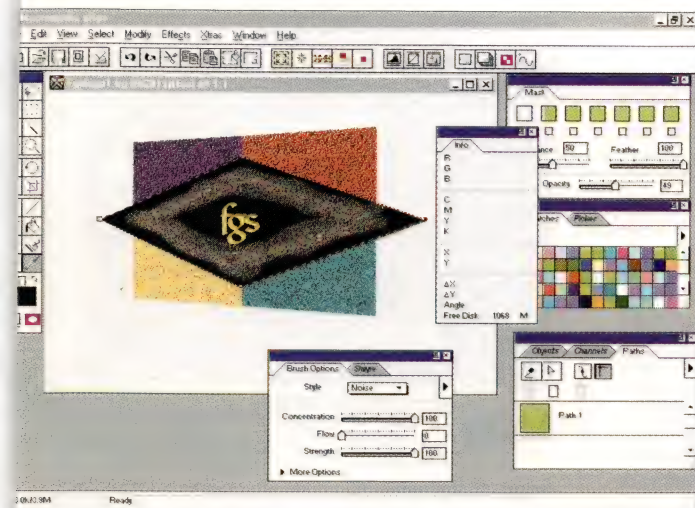


Figure 3. Using xRes to add "noise" to the textured logo

Your illustrations are entered into a document page, although you can marshal and modify objects on the pasteboard outside it in a similar manner to Adobe PageMaker. Multiple pages are accommodated and, unusually, you can create a range of pages of different sizes within the one document.

FreeHand is well equipped for the creation of vector-based designs and has a vast range of tools to do the job. These include a small army of plug-ins, called Xtras, and support for a good range of on-vector (bitmap) formats. Some of the newer items include effects tools like enveloping, roughen and bend. FreeHand integrates smoothly with the major competitive graphics applications and for the most part will accept their native file formats.

Particular attention has been paid to providing the resources to design and produce Web graphics images. Illustrations can be saved in the vector formats Flash (.SWF) and Shockwave (.FHC).

Unlimited layering is provided and there are 100 levels of undo and redo.

I found the text creation and handling resources quite impressive. You can work with text as objects, of course, so it can be modified at will, converted to paths, attached to paths, coloured and textured. More advanced features include scaling the text horizontally without changing the height, altering the percentage spacing between words, keeping selected words or lines together, applying and editing paragraph margins, creating columns and rows and even creating tables and forms. Although text can be edited directly on screen, a text editor is built in to make the job easier when text is small or dimly lit. Although an A4 document page is normally shown at 166% full size, you can control magnification to display from 6% to 6400% of normal size, so you could easily avoid using the editor if you so wished.

Despite the presence of features

common to most top-class graphics packages, such as a toolbox with standard drawing and transform tools, there are many unique approaches to the more complex graphics-modification features. For example, colour handling is controlled by processes and sequences that differ from those available in CorelDRAW. Further, blends are created with a command rather than a tool. The manual *Using FreeHand* contains a useful quick guide to the more obvious procedural differences between FreeHand and its major competitors, intended to assist a newcomer familiar with a rival package, rather than to flaunt the advantages of FreeHand. In many cases the changes are clearly beneficial.

Fontographer

This specialised graphics program is a very powerful typography editor. Its apparently simple interface belies the extensive range of precision tools available to create and edit fonts. You can generate and modify PostScript Type 1, Type 3, TrueType and Multiple Master fonts and import and export TrueType fonts and EPS files.

You can create a complex design with FreeHand or any other vector or bitmap graphics program and import the design into Fontographer, trace it if it is a bitmap, manipulate its size and shape if required and enter it in place of a letter in an existing font set or create a special font set to accommodate a large range of such images.

You can also create font families, adjust spacing and hinting, blend two fonts together and print samples of fonts, keyboard layouts and kerning pairs.

There are some intriguing specialised features. For example, you can create a series of stroked characters (which you must save as PS Type 3 fonts) and generate calligraphic characters directly from them with four quick automatic steps. Alternatively, you can use the

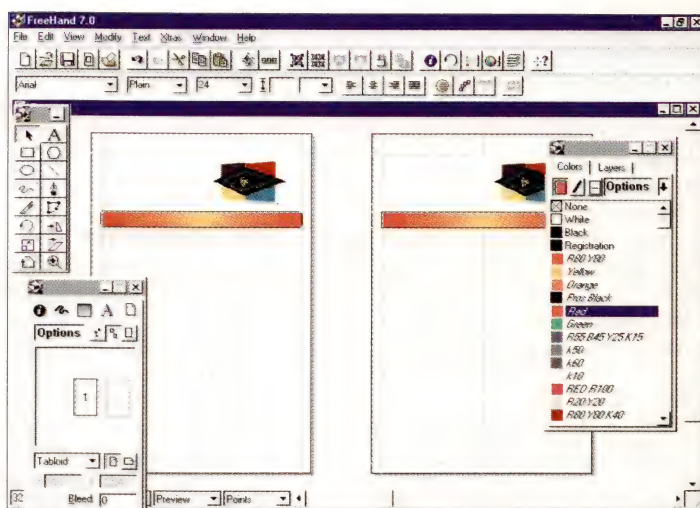


Figure 4. Preparing a letterhead, incorporating the logo

freehand drawing tool directly as a calligraphic pen. Of course, a pressure-sensitive pen and digitising tablet is likely to give better results than a simple mouse.

Here again, the manual, in this instance *Using Fontographer*, is of great assistance. In addition to detailing the procedures for using all the tools and commands in the application, there is an extensive chapter entitled *Expert Advice* which provides valuable background information. If, for example, you don't know what a hint is in the context of fonts, this chapter explains it all for you.

xRes

Designed to create and edit images, xRes, like FreeHand, has a main toolbar to hold icons for the most used commands and floating panels (that display windows), inspectors (that provide information) and palettes. The creative tools include artistic brushes, Xtra (plug-in) support, floating text objects and a gradient designer. Unlike most other image editors, xRes can quickly zoom, pan and edit large images. It also supports multiple undo levels, even with high resolution files.

xRes has been optimised for working with high resolution images. To assist in this, setting up the program includes the creation of a swap disk which xRes can use to edit documents. The required size of the swap disk depends on the number of undo levels you set (5 is a reasonable number) and the maximum image size. The tutorial for xRes includes creating five special effects by applying filters to a 28.5 MB image. These took only a few seconds to complete the process, rather than perhaps ten minutes without a swap disk. An image of this size requires a swap file of 340 MB or so. If you set the undo levels to the maximum of 20 and you are working on a 40 MB image, you will require a 1360 MB swap file. Usefully, you can add a

secondary swap file if you have more than one hard disk installed and sufficient free space available. The size of the image and the disk space reserved for it are always shown in the bottom left corner of the image window.

xRes supports a range of file formats, including BMP, EPS, GIF, JPEG, LRG, MMI, PhotoCD, Photoshop 3.0, PICT, PNG, Scitex CT, TARGA and TIFF. xRes comes with a plug-in that enables you to convert images from any of these file formats to any other on the list.

New to this version, you can now use xRes to edit a bitmap in FreeHand. You start this process (on the first occasion) by double-clicking the image in FreeHand, which brings up a dialog box and prompts you to select an application to use as the external editor. You choose xRes, whereupon xRes is started and a copy of the image appears in TIFF or LRG format for editing. Subsequent double-clicks on any bitmap image in FreeHand immediately start xRes with a copy of the image displayed.

You can create multi-layer collages from multiple bitmap images of any size.

The manual for xRes is very well presented and includes a detailed tutorial which leads you through setting up your work space, using filters, working with objects, creating a flower design by using paths, painting with xRes brushes, using masks and channels, compositing and creating brushes and textures.

Extreme 3D

This is the package for creating three-dimensional images with optional animation.

The default screen for Extreme 3D contains a tool palette and a window that displays a grid. The blank window area is the work-space and the grid area is the working plane. The latter frames your view of 3D objects and you can change the orientation to view any object from any angle.

The Quick Start manual for Extreme 3D provides excellent introductory exercises, allowing you to gain confidence in using the program by using tools, moving objects, modelling, animating, adding lights, applying materials and rendering. However, when you have completed the exercises, you have used only a small fraction of the possible effects that you can create, all fully detailed in the main manual, which is the most

substantial of all the reference manuals for FGS7.

The spline-based modelling features allow you to create 3D models from 2D reference objects. You can also drag and drop profiles from FreeHand for conversion.

The Script Editor

Clearly of greater practical interest to the more advanced users, the Macromedia Script Editor has been devised to allow you to automate repetitive tasks in FreeHand 7. It requires more than a basic knowledge of Java, the programming language used for, in this instance, the development of script Xtras. A set of sample scripts is included to provide samples of working code for users preparing their own plug-ins.

Shockwave and the Internet

Shockwave is Macromedia's software for viewing and modifying dynamic graphics for the World Wide Web. It comprises compression utilities and Xtras for FreeHand and xRes to reduce file size by about 50% and therefore decrease transmission time. It includes plug-ins and controllers for Netscape Navigator and Internet Explorer to enable interactive multimedia, sound and graphics.

In xRes, for example, you can publish and view a high resolution image on the Internet without having to download all the image, since Shockwave downloads just sufficient data for display at the selected zoom level.

In Extreme 3D you can create both still and animated 3D models for "shocked" Web sites. VRML2 is supported.

Shockwave enables you to pan and zoom an image from within your browser. Up-to-date information about Shockwave and xRes can be obtained from the Macromedia Web site.

Conclusion

This is a very impressive package. The manuals are clearly written, all of similar style, and the material they cover is extensive. Much tutorial help is given, via the *Getting Started* manuals and the training movies. This is important, because of the very wide range of features available. Time has not permitted me to examine them all, but all the processes which I did complete worked very smoothly and as expected. FGS7 is very suitable for both the keen amateur and the professional graphic artist. □



Figure 5. Extreme 3D

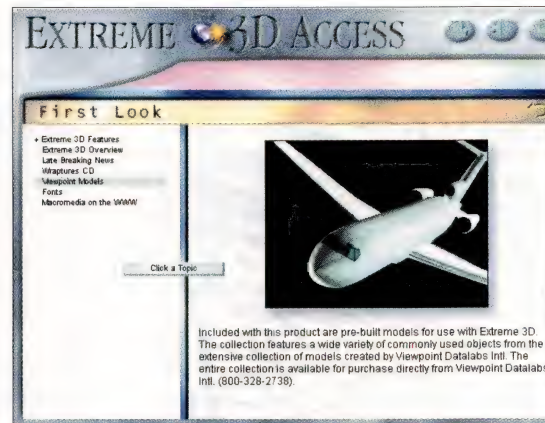


Figure 6. Using the Extreme 3D Access disc

Info Box

Macromedia FreeHand Graphics Studio 7

Minimum system requirements

- Windows 95, Windows NT
- 12 MB of RAM (16 MB recommended)
- 25 MB hard disk space (see review)
- CD-ROM drive for installation, clipart and fonts
- Mouse or digitising tablet
- Colour monitor recommended
- PostScript-compatible printer recommended

File format compatibility

Import and Export: EPS, FreeHand 3, 4, 5 and 7, Illustrator 1.1, 88, 3.0, 4.0, 5.5 and 6, RTF, ASCII, TIFF, GIF, JPEG, PNG, PDF, xRes LRG, Targa, BMP

Import Only: Photoshop 3, DXF, CorelDRAW 3, 4, 5 and 6

Availability and cost

From major software retailers.

Australian distributor:

Mitsui Computer

14 Aquatic Drive

Frenches Forest NSW 2086

Ph: (02) 9935 2400

Fax: (02) 9935 2500

RRP: \$799 (Street prices \$100 or better less than this)

Peter's PC Update Puzzles

BEND YOUR BRAIN BOX

Peter Smith



These puzzles are designed to be solved without using a computer—if a bird-brain can write them, another bird-brain can solve them!

We've run out of prizes, so there's no need to mail your solutions this month—catch out for the answers in November's *C Update*.

Who and When

A family has five children—born in 1979, 1982, 1984, 1987 and 1989. Their names are not necessarily in that order) are Barry, David, Linda, Mary and Tanya. Their birthdays (again not necessarily in order) are 2nd, 9th, 16th, 21st and 30th of the month.

One child was born in February, the others in March, June, August and October. Using the clues below, can you work out each child's full birth date?

- The youngest child is a girl.
- The second youngest child was not born on the second of the month.
- Linda is older than the sister who was born on 30 June.
- One child was born in February 1984, but not in the first week of the month.
- Tanya, whose birthday is on the 16th, is older than David, who was born in October.
- Barry, the second child, was not born in August, nor in the first half of the month.

Cryptotext

This cryptotext contains part of an *Ogden Nash* quotation. The original text was converted using a simple substitution code, that is each occurrence of a particular letter has been replaced with another letter. No letter is replaced by itself.

The most common letters in the English language are E T A I O and N. Words of two or three letters are a good place to start.

Anyone for Tennis?

Mary and Isobel played an afternoon of tennis. After they had played 36 games the score was two sets all. Mary served first and they alternated service each

game. 12 of the service games were lost. Mary never lost more than three consecutive games.

After the match, Mary noticed that if she had lost the first game, and all the other results were unchanged, then the 36 games would have ended with a score of three sets to love, in her favour.

(A set ends when one player wins her sixth game and her opponent has won less than five, or when one player has won more than six games and is two games ahead, e.g. 7–5, or 8–6. Mary and Isobel don't play tie-breakers!)

Who won each game, what were the set scores as they were played, and what would they have been if Mary had lost the first game?

Hint

No set went, or would have gone, to a higher score than 8–6. □

August's solution

The winner was Jon Leaver.

Solution

First: 1, 3, David
Second: 2, 1, Charles
Third: 6, 5, Barry
Fourth: 4, 6, Andrew
Fifth: 5, 2, Edward.

Who and when

	Day	Month	Year
Barry			
David			
Linda			
Mary			
Tanya			

Cryptotext

Y	C	L		I	F	G		N	B		F	J	,		
Y	C	L		T	F	K	N	A	L		N	W	V	;	
F	A	L		L	A	U		N	B		R	F	F	,	
Y	C	L		F	Y	C	L	M			R	N	W	V	.

Anyone for Tennis?

Scores	1st Set	2nd Set	3rd Set	4th Set
Actual Game	—	—	—	—
'Might-have-been' game	—	—	—	

Set winners

1	M	2	3	4	5	6	7	8	9
10		11	12	13	14	15	16	17	18
19		20	21	22	23	24	25	26	27
28		29	30	31	32	33	34	35	36

QUESTIONS & ANSWERS

John Swale



Answers received

From Jasper Daams Re: Win 3.1 not reading floppy drives. I had a similar problem recently on one of the computers I look after. When I checked the free memory it was only running at about 440 KB. After I optimised the computer with MEMMAKER and achieved 570 KB free memory, the problem with the floppy drive disappeared.

[JS: In the August issue there was a question about animated icons seen at Myer. Apparently this is a feature of the IBM Aptiva and I could not find any software available for other PCs to use for this purpose.]

Questions and answers

Q I have lost the "My Computer" folder from the Desktop in Windows 95. I have tried to re-create it but all I get is the short cut, not the system folder. I have re-installed Windows 95 but this did not bring it back. Microsoft was not able to help.

A A: Apparently My Computer is an integral part of Windows 95 and the data is buried very deeply in the Registry. It is not recommended that users try to perform any surgery on it.

Q I have a problem with e-mail to Melb PC. I can send short messages or messages with small attachments. If I try to send message over about 6 lines or attachments over 200 KB, the e-mail system hangs. I have tried four e-mail packages with the same result.

A Some active shareware screen savers can interfere with e-mail. Try turning them off.

Q I have been running Norton Backup for Windows in Windows 3.11. Now I am using Windows 95 but Norton Backup will not work. I have a Colorado tape drive and tried the Windows backup which is from Colorado but it does not work either. It formats the tape in bursts rather than in a stream. After formatting a tape, the backup stops part way through stating that the tape is invalid.

A I had a similar problem and solved it by getting the latest driver from the HP Web site. You may have to adjust the settings to suit your new conditions.

[JS: I had a similar problem with Colorado software and Colorado tape unit under Windows 3.11. This was solved by reducing the screen resolution to a minimum.]

Q I have moved to the old 059 telephone code area and would like to get back on the Internet. Is there a list of local service providers for that area code?

A There are a number of Internet magazines in the newsagents that list service providers by location. Alternatively get a friend to check on the Internet for you.

Unanswered Questions:

Q Windows 95 starts but then issues a message that it does not have enough memory to load the Registry. It continues to load and seems to work satisfactorily. I have reformatted the hard disk and reloaded Windows. It works the first time but the second time I get the message again. Is this a real problem?

Q I use Windows 95 and use a number of communications packages, e.g. WinCim and Microsoft Exchange. I cannot get them to work together and was wondering if Exchange affects the comms packages. If I try to access Compuserve for example, the initialisation and accessing the line works. As soon as the hand-shaking starts the system stops and I get a "no access to the host" message. How do I solve it?

[JS: I found a problem with HyperTerminal setting the modem responses to numeric and the other communications packages were looking for verbal responses. Check that the modem V0/V1 setting is correct for the communications package.]

Q From Ron Kitchenn: Encarta 97, under Windows 3.1 (486DX/33) comes up with an error message saying there's not enough memory. The Help notes give a procedure to create a permanent swapfile via Control Panel and Virtual Memory. The existing state was given as a temporary swap file of 14832 KB (MS-DOS). On moving to change to a permanent swap file the offered conditions were: C:, permanent; Available 30712; Max size 1904, Rec. size 1895, New size [to be selected or changed] 1895. I chose the latter and hit OK to restart Windows. After the Windows logo, but before the wallpaper appeared, the following error note appeared: "Corrupt swap file warning. The permanent swap file is corrupt. You need to create a new swap file. Choose the 386 Enh icon in Control Panel, and then choose the Virtual Memory button. For Help with Virtual Memory settings, press F1 while using the dialog box. Do you want to delete the corrupt swap file? Press Y for Yes or N for No". Y was presented as the default, and accepted. Program Manager came up, but on entering 386Enh and Virtual Memory, another error message says there is a corrupt swap file and offers a choice to set its length to zero, which was accepted. All subsequent attempts to use either a temporary or permanent swap file fail, in that on accepting the "restart" button in the Virtual Memory dialogue box produces the Corrupt Swap File warning on restarting Windows. Any suggestions?

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Over to You

Please contact me if you have any comments on the answers given; can provide a reply for the unanswered questions; or if you cannot attend the monthly meeting and would like a question asked and included in this column.

To contact me: write to me care of the office; leave a message on the BBS or telephone me on (03) 9857 5567 AH or e-mail me at jswale@melbpc.org.au

Note: Please contact commercial distributors before asking a question here. In all cases mention version numbers.

From Brian Bracegirdle: At the school where I teach I have set up a small network using an NT 3.51 server. This is connected to 18 Pentium computers running Windows 95. For printing we use a 486-based print server running Windows 3.1, connected to two printers and one plotter. The computers work fine but the printing is a constant source of frustration. The print server does not seem to be able to handle multiple print requests reliably. This is most noticeable with large files. I often have to re-boot the print server several times during class and students then have to send their print requests again. I have discussed this with several technicians and they have all given me different advice. As a result I don't know what to do next. So far I have been told to install NT workstation to the print server to overcome this problem. Another technician told me this will not help and that all networks have printing problems. Another technician said Windows 95 will work better on the print server than Win 3.1. I would be extremely grateful if someone could give any advice on this problem or refer me to a reliable technician with experience in this field.

Can anyone tell me where to get a Windows 95 driver for a Panasonic 24-speed CD-ROM?

Acknowledgments

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American Power Conversion for the supply of six uninterruptible power supplies for the Group's Communications Centre.

ACA Pacific for the donation of a Diamond Stealth Video card for **PC Update** production.

Computer Rebuilds for the supply of equipment for **PC Update** production and the group's communications centre.

Corel Corporation for copies of CorelDRAW and Corel VENTURA used in the production of **PC Update**.

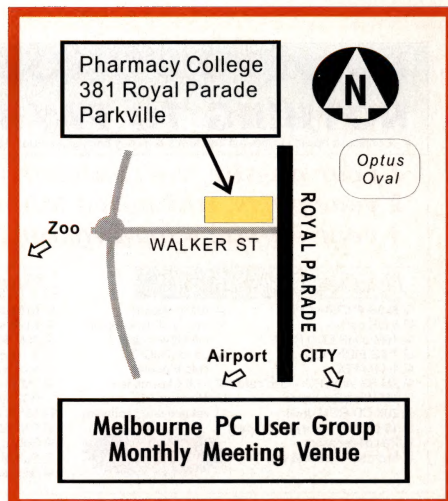
Hewlett-Packard for a LaserJet 4M printer for administration and a Vectra PC, ScanJet scanner and LaserJet 5Si MX used in the production of **PC Update**.

Michaels Camera & Video for a Kodak DC20 Digital Camera.

Microsoft Australia for contributions and support over many years.

SONY Australia for the supply of equipment for **PC Update** production.

Symantec Australia for contributions and support over many years.



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Stan Johnstone Meetings convenor
and administrator
Phone: (03) 9578 3091 BH
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1 October

5 November

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- Socialising
- Don't forget the Waffle SIG after the meeting.

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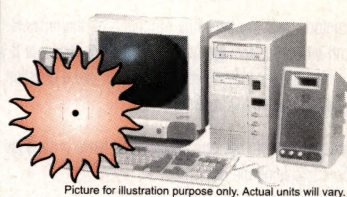
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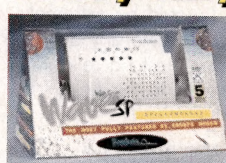


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